IMPACT OF CHILD-CENTERED PLAY THERAPY ON THE MINDFUL EXPRESSIONS AND SOCIAL-EMOTIONAL COMPETENCIES OF HEAD START PRESCHOOLERS

Hannah Robinson, MS, LPC, RPT

Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

August 2021

APPROVED:

Dee C. Ray, Major Professor
Kimberly King, Committee Member
Matthew Lemberger-Truelove, Committee Member
Misty Solt, Committee Member
Natalya Lindo, Chair of the Department of Counseling and Higher Education
Randy Bomer, Dean of the College of Education
Victor Prybutok, Dean of the Toulouse Graduate School

Robinson, Hannah. *Impact of Child-Centered Play Therapy on the Mindful Expressions and Social-Emotional Competencies of Head Start Preschoolers*. Doctor of Philosophy (Counseling), August 2021, 173 pp., 2 tables, 5 appendices, references, 131 titles.

In this study, I examined the impact of child-centered play therapy (CCPT) on the social and emotional functioning and mindful expressions of preschoolers in Head Start preschool programs. Participants were 23 children from two Head Start preschool programs in the southwestern U.S. who qualified for free or reduced lunch and were referred by school personnel for behavioral or academic concerns (18 males, 5 females; ages 3-5, mean age = 3.74). The sample consisted of 1 (4.3%) African American, 5 (21.7%) Caucasian, 14 (60.9%) Latino, and 3 (13%) multiracial children. Participants were randomly assigned to eight weeks of twice-weekly CCPT experimental groups (n = 11) or a waitlist control group (n = 12). Results of the independent samples t-tests revealed statistically significant improvement in preschool children's empathy and responsibility for children who participated in CCPT on the Social Emotional Assets and Resiliency Scale for Preschool. Practically significant findings revealed that CCPT may influence specific mindful expressions including curiosity and openness as well as overall social-emotional competence, emotional knowledge and expression, and empathy and responsibility in Head Start preschool children. Results of this study support the effectiveness of CCPT with disadvantaged preschool children.

ACKNOWLEDGMENTS

I am endlessly grateful for the wonderful people who have supported me on this journey and made it possible for me to make it this far. Richard, thank you for delivering me coffee and food at all hours of the day when I had long nights and early mornings. You are the best husband and I would not be where I am today without you. Thank you to my family for encouraging me to be a lifelong student. Thank you to my dogs, Baxter and Winston, for being my emotional support animals throughout the program. Dee, thank you for caring about me as a person and not just as a student. I will forever admire you and your ability to connect with and truly understand your students and your ability to supervise and teach. I am so lucky to have you in my life and I am certain I would not be graduating if it weren't for your support and encouragement throughout my four and a half years in the program. To my committee members, Kimberly, Matthew, and Misty, thank you for believing in me, mentoring me, and spending countless hours reading and editing my papers. Last and most importantly, thank you to my sweet baby Rowan for joining me on the end of my journey as a student. My greatest accomplishment thus far and forever more is being your Mom.

TABLE OF CONTENTS

Page

IMPACT OF CHILD-CENTERED PLAY THERAPY ON THE MINDFUL EXPRESSIONS AND SOCIAL-EMOTIONAL COMPETENCIES OF HEAD START PRESCHOOLERS

Introduction

The National Center of Children in Poverty (2019) reported approximately 15 million children in the United States, which is 21 percent of all U.S. children, live in families with incomes below the federal poverty line. Head Start programs and The Head Start Performance Standards were originally developed in 1975 by the U.S. government to help disadvantaged groups in education by providing high-quality preschool programs (Office of Head Start, 2019). Head Start programs were created to provide low-income children developmentally appropriate services to aid their cognitive and social emotional development (Office of Head Start, 2019). Economically disadvantaged children are at greater risk of experiencing additional adverse childhood experiences throughout their lives, which puts them at increased risk for social-emotional struggles, problematic behaviors, and difficulty with school functioning (Bethell et al., 2014; Blodgett & Lanigan, 2018; Cronholm et al., 2015; Crouch et al., 2019; Hinojosa et al., 2019; Jimenez et al., 2016; Kerker et al., 2015; Ray et al., 2020). Intervention services designed to meet the developmental needs of young children while also strengthening their social-emotional competence, attention, and emotional regulation may serve to support disadvantaged preschool children and their well-being. I sought to explore the practice of child-centered play therapy (CCPT) as an intervention that targets mindful expressions of attention and self-regulation, as well as social-emotional competencies, with preschoolers enrolled in Head Start.

Mindfulness and Social-Emotional Competence

Mindfulness is operationally defined as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience

moment by moment" (Kabat-Zinn, 2003, p. 145). Mindfulness interventions are traditionally specific, structured ways to engage in mindfulness such as mindfulness-based cognitive therapy and mindfulness-based stress reduction (Kabat-Zinn, 2003). However, Kabat-Zinn (2003) noted mindfulness interventions are not essential in order to learn and practice mindfulness, nor are they essential in order to enhance mindfulness. Rather, mindful expressions, which are specific expressions of mindfulness, can be observed in daily experiences and behaviors and not solely during mindful practices (Malinowski, 2008). Mindful expressions, therefore, are outward behaviors that demonstrate levels of mindfulness in individuals (Malinowski, 2008).

Researchers have examined the effectiveness of directive mindfulness-based interventions for children of all ages, including preschool-aged children (Flook et al., 2015; Kallapiran et al., 2015; Khoury et al., 2013; Lemberger-Truelove et al., 2018; Poehlmann-Tynan et al., 2016). Mindfulness-based interventions have resulted in increased regulation, attention, and empathy in children (Felver et al., 2017; Flook et al., 2010; Flook et al., 2015; Lemberger-Truelove et al., 2018; Zenner et al., 2014). However, some scholars have noted that despite the benefits, certain mindfulness interventions may be developmentally inappropriate for children (Greenberg & Harris, 2012; Shute, 2019) and may result in adverse effects for individuals who have experienced complex trauma (Chadwick & Gelbar, 2016, Treleaven, 2018; Van Dam et al., 2018). Adverse effects of mindfulness interventions may include fear, anxiety, panic, paranoia, re-experiencing of traumatic memories, impairment in executive functioning, disintegration of conceptual meaning structures; delusions, irrational, or paranormal beliefs; increased agitation and irritability (Lindahl et al., 2017). Therefore, therapeutic modalities that increase mindful expressions in children and obtain similar results to mindfulness-based interventions may be advantageous, simultaneously considering the developmental level and potential trauma

experiences young children from disadvantaged background may have. Xia and colleagues (2019) found nonmindfulness interventions, interventions without a meditation component, to enhance mindfulness in adults; however, no previous research has examined the influence of nonmindfulness interventions on mindfulness qualities in children.

Mindfulness-based interventions and social emotional learning (SEL) have recently been combined in differing interventions with children, resulting in positive effects for the children included in the interventions (Lemberger-Truelove et al., 2018; Palacios & Lemberger-Truelove, 2019). Furthermore, theorists have detailed the similarity of components of mindfulness and social-emotional competencies (Feuerborn & Gueldner, 2019; Lawlor, 2016). For example, Feuerborn & Gueldner (2019) and Lawlor (2016) examined how mindfulness components fit within the SEL framework as identified by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2021), specifically describing the mindfulness components that fit within each of the following SEL competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision making. Lawlor (2016) described how the mindful components of emotional awareness, emotional regulation, and empathy and compassion for others align with the SEL competencies of self-awareness, self-management, and social awareness, respectively.

Social-emotional development is a focus of early childhood development (CASEL, 2021). Additionally, the Head Start Early Learning Outcomes Framework (HSELOF; Administration for Children & Families, 2015), developed to identify specific areas that equip young children with abilities to succeed in school based on research, include social and emotional development as one of five essential domains, suggesting that children from disadvantaged backgrounds may benefit from strengthening social-emotional competencies in

young childhood. Preschoolers' social-emotional abilities are related to kindergarten readiness, kindergarten achievement, and academic development (Arnold et al., 2012; Denham et al., 2014; Torres et al., 2015).

Preschoolers are at a unique stage of development in which social-emotional learning is of precedence (CASEL, 2021; Administration for Children & Families, 2015). Furthermore, mindfulness components including attention, empathy, and self-regulation relate to social-emotional development and are imperative for kindergarten readiness as well as overall development (Arnold et al., 2012; Denham et al., 2014; Murano et al., 2020; Torres et al., 2015). Children from disadvantaged backgrounds may struggle to develop social and emotional competencies (Kerker et al., 2015; Ray et al., 2020), resulting in negative consequences later in life (Jones et al., 2015); therefore, children from disadvantaged backgrounds need enhanced support in order to increase their strengths. Preschool children, particularly those from disadvantaged backgrounds, are therefore at an ideal age to receive intervention services tailored to strengthen social-emotional competencies and mindful expressions.

Child-Centered Play Therapy

Child-centered play therapy (CCPT) is a nondirective form of play therapy, in which the therapist strives to demonstrate the person-centered therapeutic conditions with children (Landreth, 2012; Ray, 2011; Rogers, 1957). Multiple meta-analyses have supported the effectiveness of CCPT in addition to many individual studies across time (Bratton et al., 2005; Lin & Bratton, 2005; Ray et al., 2015). To date, no studies have examined the impact of CCPT on the mindful expressions of disadvantaged preschoolers. However, CCPT has been shown to be effective in reducing inattentive symptoms (Kram, 2019) and facilitating the development of self-regulation (Wilson & Ray, 2018), which are the two factors most readily found to be

empirically-supported outcomes of mindfulness interventions (Hozel et al., 2011). Furthermore, two studies have found CCPT to strengthen elementary children's social-emotional competencies (Blalock et al., 2019; Taylor & Ray, 2021). The effectiveness of CCPT with disadvantaged preschoolers in reducing behavioral problems has also been established (Bratton et al., 2013). Theoretically, CCPT may offer a particular environment leading to mindfulness states of presence and acceptance. Because one of the goals of CCPT is for the child to become more self-accepting and therefore accept all aspects of self, the attainment of that goal might result in the child experiencing a present non-evaluative self awareness and connection to others which may contribute to mindful outcomes. CCPT may therefore be a possible intervention to strengthen the mindful expressions and social-emotional competencies in disadvantaged preschoolers due to the research support for CCPT, the relationship between mindfulness constructs and social-emotional competencies, and because of the developmental appropriateness of CCPT for use with young children.

Purpose of the Study

The purpose of this exploratory study was to examine the impact of CCPT with preschool children in Head Start programs. Due to lack of research on the effectiveness of non-directive interventions related to mindful expressions, as well as the strong correlations between mindfulness and social-emotional competencies, the current study served as an exploration of CCPT intervention related to these outcomes. Specifically, this study addressed two research questions. 1) What is the impact of child-centered play therapy on the mindful expressions of preschoolers in Head Start preschool programs? 2) What is the impact of child-centered play therapy on the social and emotional functioning of preschoolers in Head Start preschool programs?

Methodology

A randomized controlled trial was conducted to examine the impact of CCPT on the social and emotional functioning and mindful expressions of preschoolers in Head Start preschool programs. The experimental group received CCPT while the waitlist control group received CCPT services following the intervention period.

Participants

Participants were recruited from two Head Start preschools located in southwest United States. According to state law (Texas Education Agency, 2020), children met one of the following criteria in order to attend a Head Start school including unable to speak English, educationally disadvantaged, homeless, child of a parent in the armed forces or parent harmed while on active duty in military, ward of the state, or child of a first responder who was injured or killed in line of duty.

Participants met the following set of criteria in order to qualify for this study: children (a) were enrolled in a Head Start preschool program; (b) referred to the study by a teacher or parent due to behavioral or academic concerns; (c) qualified for free or reduced lunch; and (d) had consent from parent/guardian to participate in the study. The total number of children recruited was 23 (CCPT=11; Control=12). In order to meet the minimum sample size recommendation made by de Winter (2013) to conduct an independent samples t-test, a minimum of 4 participants was necessary for data analysis.

The sample consisted of 9 males and 2 females between the ages of three to five years old (M= 3.72, SD=0.467) in the experimental group, and 9 males and 3 females between the ages of three to five years old (M= 3.75, SD=0.622) in the control group. Regarding ethnicity, in the experimental group 9% reported being African American (n=1), 36% Caucasian (n=4), 45%

Latino (n=5), and 9% Multiracial (n=1). In the control group, no participants reported being African American, 8% Caucasian (n=1), 75% Latino(n=9), and 17% Multiracial (n=2).

Instruments

The Child Observation of Mindfulness Measure (C-OMM; Lemberger-Truelove et al.,, 2019) was utilized in order to measure the mindful expressions of the participants in the study. The *C-OMM* was developed to measure the observed levels of mindful expressions of preschool-aged children, as all previously developed child-focused mindfulness assessments were developed exclusively for children ages 8-years and older and focused on child-self report rather than direct observation (Lemberger-Truelove et al., 2019). Lemberger-Truelove et al. (2019) suggested that the systematic observation of children's behaviors may serve as a more reliable method for mindfulness assessments; hence, the C-OMM was developed to observe children's outward expression of mindfulness by assessing their mindful behaviors.

The C-OMM is intended to observe the mindful expressions of preschool children in the classroom, and focuses on the following factors: noticing behaviors, sustained attention, quality of attention, openness towards others, judgment of others, curiosity, openness from others, and judgment from others. All items on the C-OMM are scored on a scale of 1-7, with lower scores being indicative of lower levels of the specific mindfulness factors, and higher scores indicative of higher levels of the factor observed. Due to the recent developments of this newly created instrument, the C-OMM reliability has not yet been established.

Although the C-OMM is comprised of eight factors, I selected four factors as variables of interest for the current study including sustained attention, quality of attention, openness, and curiosity. Sustained attention refers to the amount of time the child focuses on a task (Lemberger-Truelove & Zieher, 2019). Quality of attention includes the degree to which the

child is interacting with and engaged with the task at hand, with a specific focus on the child's engagement with both the objects and the individuals relevant to the task. Sustained attention and Quality of attention were selected as variables of interest due to previous correlations between improvement in children's attention and CCPT (Kram, 2019; Ray et al., 2007; Schottelkorb & Ray, 2009). Openness refers to the amount the child is receptive to experiences and/or individuals in their present surrounding. Curiosity includes the degree to which a child is interested in the individuals and elements around them. Openness and Curiosity were selected due to the theoretical fit of CCPT goals regarding the provision of an experience in which the child can explore the world within a safe and supportive relationship (Landreth, 2012; Ray, 2011), specifically for children who may have experienced the world as unsafe.

The C-OMM was administered by trained administrators who participated in a training facilitated by C-OMM experts (Lemberger-Truelove & Zieher, 2019). For this study, the C-OMM administrators were trained directly by the developers of the C-OMM in a 4-hour training conducted across 2 weeks. C-OMM administrators were two doctoral students who had completed a master's in counseling, were receiving specializations and advanced training in play therapy, and attended a 2-hour training on assessment administration. The C-OMM takes approximately 30-45 minutes to administer to a child in which 3 cycles of 10-minute observations followed by scoring are completed for each participant. The raters conducted observations over a two-week period to establish interrater reliability, in which they conducted simultaneous but independent observations of children in a school setting until they reached a reasonable level of interrater reliability. The interrater reliability intraclass correlation coefficient score was calculated at 0.91.

The Social Emotional Assets and Resiliency Scale for Preschools (SEARS-Pre) is a

teacher-reported, strength-based assessment created to measure the social-emotional competencies and assets of young children ages 3-5 years old (Ravitch, 2013). The SEARS-Pre measures the social and emotional competence of young children, focusing on the following skills: self-regulation, social competence, empathy, responsibility, and emotional knowledge.

The SEARS-Pre consists of 42 items and has three factors in which it provides overall scores as well as a total score. The three factors include the following: Self Regulation/Social Competence, Emotional Knowledge/Expression, and Empathy/Responsibility. Respondents are asked to consider the child's behavior during the last 3 to 6 months when answering the questions on the SEARS-Pre, and rate each item on a 4-point rating scale that includes the responses Never, Sometimes, Often, and Always. The SEARS-Pre is hand scored by the administrator, with higher scores indicative of higher levels of social and emotional assets.

Reliability estimates for the SEARS-Pre are considered strong with internal consistency scores of .95 for Self-Regulation/Social Competence, .92 for Emotion Knowledge/Expression, and .90 for Empathy/Responsibility. The internal consistency of the total score was reported at .97 (Ravitch, 2013). Ravitch (2013) reported validity of the SEARS-Pre was demonstrated by showing sensitivity to group differences based on gender and age.

Procedures

Procedures for this study were conducted as part of a larger research study on the use of CCPT with children who were reported to have academic or behavioral problems in school. Following IRB approval for human subjects research, I worked with school administrators to identify preschool children who met study criteria. Once children were identified for participation, I provided confidential envelopes to each child's guardian, with the confidential envelopes containing the informed consent and demographic form. Additionally, I provided

confidential envelopes to each child's teacher with an informed consent and a SEARS-Pre to complete. The consent forms included the purpose, procedures, and potential risks of the study. After the informed consents were collected, a research team member met with each child participant individually to explain the research study and attain assent.

Following attainment of all consent and assent for participants, the teachers of child participants were asked to complete the SEARS-Pre. Additionally, children were observed in their classrooms by a trained administrator using the Child Observation of Mindfulness Measure (C-OMM). For consistency, all children were observed during center time. During the C-OMM observation, the trained administrator observed the child during center time for three 10-minute intervals. Assessment administrators, parents of child participants, and teachers were not notified of which group study participants were assigned to in order to ensure research integrity.

Child participants were randomly assigned into the experimental CCPT group or the waitlist control group. Random assignment with block randomization for group assignment by each school was completed. Electronic randomization software was used to randomize participants. Following completion of the 16 play therapy sessions in the CCPT experimental group or the eight-week experimental period, teachers were asked to complete a SEARS-Pre on all child participants and the trained observers completed the C-OMM for post testing observation.

Intervention Group

Children randomly assigned to the treatment group received twice weekly, 30-minute CCPT sessions totaling 16 sessions across an 8-week period. All play therapists who provided CCPT sessions abided by the CCPT treatment manual (Ray et al., 2017). In accordance with the manual, the following conditions were ensured: the playrooms were structured to include the

necessary toys and toy category to facilitate full expression and creativity, the therapists focused on conveying unconditional positive regard, congruence, and empathic understanding to the child while focusing verbal responses on the categories of responses included in *Child-Centered Play Therapy- Research Integrity Checklist* (CCPT-RIC; Ray et al., 2017). Aligning with the CCPT-RIC, verbal responses included tracking, reflecting content, facilitating decision-making and responsibility, facilitating creativity and spontaneity, esteem building and encouraging, reflecting feelings, facilitating relationship, limit setting, and reflecting larger meaning. In addition to verbal responses, nonverbal components of CCPT were also the foci of the CCPT sessions, which included open and forward-facing body posture, following the child with body posture, and congruent therapist tone in relation to child's affect and therapist responses (Ray, 2011).

The CCPT sessions were conducted in playrooms set up inside each school. Each playroom was structured according to Landreth's (2012) guidelines, and included reality, creative, and aggressive toys. Examples of reality toys include the cash register, doll house, and kitchen. Examples of creative toys include sand, water, paint, and paper. Examples of aggressive toys include the bop bag, rubber knives, and foam swords.

All participating play therapists completed at least two CCPT didactic courses and one clinical course in play therapy prior to participating in this study. The counselors also participated in weekly play therapy supervision. All play therapists were students currently enrolled in a CACREP-accredited counseling program or were graduates from CACREP-accredited counseling programs. Additionally, all play therapists participated in a two-hour training regarding clinical protocol in a school setting prior to the onset of services.

Nine play therapists facilitated the weekly play therapy sessions for this study. Four

counselors were current doctoral students and five counselors were masters-level counselors. All nine play therapists were female and the ethnicities of the counselors included the following: Caucasian (n=6), Latina (n=2), and Asian (n=1).

Fidelity checks were completed using the Child-Centered Play Therapy Research Integrity Checklist (CCPT-RIC; Ray et al., 2017). The checklist was used to ensure adherence to the treatment manual and includes eight categories of verbal responses. In order to meet adherence standards, 80% of the play therapist's responses must fall into the CCPT response categories. Fidelity checks were conducted by a Masters-level student in a CACREP-accredited counseling program who had completed two play therapy courses and received two semesters of supervised CCPT supervision. The auditor was trained in using the *CCPT-RIC* (Ray et al., 2017). The auditor then randomly selected one video session for each participant and coded verbal responses using the CCPT-RIC (Ray et al., 2017). Then, the researcher calculated the integrity percentage following completion of the audit. A 98% adherence to protocol among all sessions was attained, ensuring that CCPT fidelity standards were met.

Waitlist Control Group

Children randomly assigned to the waitlist control group did not receive play therapy services during the 8-week experimental portion of the study. However, waitlist control group participants participated in all pre-and post-testing, including the C-OMM and SEARS-Pre assessment. Following the experimental period and all post-testing, waitlist control group participants received at least 16 weekly individual play therapy sessions.

Data Analysis

Independent-samples t-tests were conducted to determine if there was a statistically significant difference between the specific mindful expressions and the specific social and

emotional competencies for children in the treatment and control groups. All assumptions for the eight independent samples t-tests were met. Dependent variables included the difference scores between pre and post tests on Sustained Attention (C-OMM), Quality of Attention (C-OMM), Openness (C-OMM), Curiosity (C-OMM), Self Regulation/Social Competence (SEARS-Pre), Emotional Knowledge/Expression (SEARS-Pre), Empathy/Responsibility (SEARS-Pre), and the total score on the SEARS-Pre. The alpha level to examine the statistical significance for each independent samples t-test was set at .05. Practical significance was determined by the effect size, indicated by Cohen's *d* to determine the magnitude of difference between the two groups due to treatment. The magnitude of the effect was interpreted according to Cohen (1977), with .2 being small, .5 medium, and .8 large effect sizes.

Results

Mindfulness

Table 1 presents the pre- and posttest means and *SD* values for the intervention and waitlist control group for the C-OMM factors. Results for the dependent variable, Sustained Attention, revealed there was no statistically significant difference in sustained attention mean difference scores for the CCPT intervention group (M = .76, SD = 1.42) and the control group (M = .42, SD = 1.65, $t(21)$ = .53, p = .60, two-tailed). The magnitude of differences in the means (mean difference = .3397, 95% CI -1 to 1.68) was small (Cohen's d = .22).

Results for the dependent variable, Quality of Attention, revealed there was no statistically significant difference in quality of attention mean difference scores for the CCPT intervention group (M = 0.52, SD = 1.15) and the control group (M = 0.14, SD = 1.42, $t(21)$ = .698, p = .493, two-tailed). The magnitude of differences in the means (mean difference = .38, 95% CI -.75 to 1.5) was small (Cohen's d = .29).

Results for the dependent variable, Openness, revealed there was no statistically significant difference in openness mean difference scores for the CCPT intervention group (M = .70, SD = 1.23) and the control group (M = .14, SD = 1.10, $t(21)$= 1.148, p = .264, two-tailed). The magnitude of differences in the means (mean difference = 0.56, 95% CI -.45 to 1.57) was moderate (Cohen's d = .48). CCPT demonstrated a moderate effect on children's openness, indicating children in CCPT demonstrated an observable effect on preschool children's level of openness when compared with waitlist control group children.

Results for the dependent variable, Curiosity, revealed there was no statistically significant difference in curiosity mean difference scores for the CCPT intervention group (M = 1.49, SD = 1.51) and the control group (M = .39, SD = 1.27, $t(21)$= 1.896, p = .072, two-tailed). The magnitude of differences in the means (mean difference = 1.1, 95% CI -.11 to 2.3) was large (Cohen's d = .79). CCPT demonstrated a large treatment effect on children's curiosity, indicating that children who participated in CCPT demonstrated higher levels of curiosity when compared with children in the waitlist control group.

Social-Emotional Competence

Table 2 presents the pre- and posttest means and SD values for the intervention and waitlist control group for the SEARS-Pre factors and total score. For the SEARS-Pre analysis, one participant was excluded from the intervention group due to the participant's teacher's failure to return the completed pre-test and post-test assessments.

Results for the dependent variable, Total social and emotional competence, revealed there was no statistically significant difference in total mean difference scores for the CCPT intervention group (M = 5.5, SD = 10.16) and the control group (M = -1.08, SD = 8.30, $t(20)$= 1.674, p = .11, two-tailed). The magnitude of differences in the means (mean difference = 6.583,

95% CI -1.62 to 14.79) was large (Cohen's *d*= 0.71). CCPT, therefore, demonstrated a large treatment effect on the total social and emotional competence of children.

Results for the dependent variable, Self Regulation/Social Competence, revealed there was no statistically significant difference in self regulation/social competence mean difference scores for the CCPT intervention group (*M* = 3.2, *SD* = 6.21) and the control group (*M* = 1.5, *SD* = 3.75, *t*(20)= .792, *p* =.438, two-tailed). The magnitude of differences in the means (mean difference = 1.7, 95% CI - 2.78 to 6.18) was small (Cohen's *d* = .33).

Results for the dependent variable, Emotional Knowledge/Expression, revealed there was no statistically significant difference in emotional knowledge/expression mean difference scores for the CCPT intervention group (*M* = 1.3, *SD* = 4.32) and the control group (*M* = -1.75, *SD* = 4.14, *t*(20)=1.688, *p* =.107, two-tailed). The magnitude of differences in the means (mean difference = 3.05, 95% CI -0.72 to 6.82) was large (Cohen's *d* = .72).

Results for the dependent variable, Empathy/Responsibility, revealed there was a statistically significant difference in empathy/responsibility mean difference scores for the CCPT intervention group (*M* = 1.00, *SD* = 1.89) and the control group (*M* =- 0.83, *SD* = 1.47, *t*(20)=2.57, *p* =0.018, two-tailed). The magnitude of difference in the means (mean difference = 1.833, 95% CI 0.34 to 3.32) was very large (Cohen's *d* = 1.08). CCPT demonstrated a very large effect on children's Empathy and Responsibility, indicating that CCPT had a positive effect on enhancing the empathy and responsibility in children.

Discussion

The current study sought to explore the impact of CCPT on the mindful expressions and social and emotional competencies of children in Head Start preschool programs, examining the difference pre-intervention to post-intervention between children receiving CCPT and those in a

waitlist control group. Specifically, I explored effects of CCPT with children who demonstrated behavioral and/or academic concerns in Head Start programs. Although there was not a statistically significant difference in mindful expressions between experimental groups, effect sizes of specific mindful expressions examined indicated CCPT demonstrated a moderate treatment effect on children's openness and a large treatment effect on children's curiosity. Furthermore, when examining the impact of CCPT on the social and emotional competencies of children, results indicated that teachers of children who participated in CCPT perceived an overall large effect on improvement in social emotional competencies, with statistically significant change in empathy and responsibility for children who participated in the CCPT intervention when compared to children who did not receive intervention services. Children in Head Start programs face a number of challenges due to being from disadvantaged backgrounds and benefit from added support and services in order to aid their emotional and academic development. Bratton and colleagues (2013) established the clinical significance of CCPT as an early mental health intervention for at-risk children in Head Start programs. The current study provides added support for the effectiveness of CCPT with children from disadvantaged backgrounds, but with a particular focus on unexplored outcomes related to mindfulness and social emotional competencies.

Mindfulness

While directive mindfulness interventions have resulted in positive effects for children, such as enhancing regulation, attention, and empathy (Felver et al., 2017; Flook et al., 2010; Flook et al., 2015; Lemberger-Truelove et al., 2018; Zenner et al., 2014), examining nondirective modalities that enhance mindful expressions in disadvantaged children may be advantageous for a variety of reasons (Chadwick & Gelbar, 2016; Greenberg & Harris; Shute, 2019; Treleaven,

2018; Van Dam et al., 2018). While one meta-analysis has suggested that mindfulness in adults may be strengthened following participation in nonmindfulness interventions (Xia et al., 2019), no research to date has examined children's mindfulness following participation in nonmindfulness interventions. Because of the similarities between goals of CCPT and mindfulness facets, I hypothesized that participation in CCPT may influence the mindful expressions of children. While all four mindfulness factors analyzed in the current study were not found to be statistically significant, two of the mindfulness factors, openness and curiosity, resulted in notable practically significant findings, and two, sustained attention and quality of attention, resulted in small practical significance.

According to the statistical results of the two attention-related mindfulness factors analyzed in the study, both groups of children (CCPT and waitlist control group) improved in sustained attention and quality of attention from pre- to posttest. Thereby, there were no notable differences in quality and sustainability of attention for children who participated in CCPT. Research on attentional variables in CCPT literature remain mixed with results indicating children who struggle with attention problems and have multiple adverse childhood experiences have demonstrated significant improvement (Kram, 2019) while children with general attentional problems demonstrated improvement with comorbid emotional factors but not specifically improved attention (Ray et al., 2007). Preschoolers' attention spans are slowly growing throughout the preschool years (Petty, 2016; Wood, 2017). At the age of five, preschool children have an average attention span of approximately 15-20 minutes maximum (Wood, 2017). Therefore, while CCPT has been effective in reducing inattention symptoms in children ages 5-8 years old who have ACEs (Kram, 2019), the expected developmental trajectory of preschool children may mitigate the ability for CCPT to have a significant impact on strengthening young

children's attentional abilities. The results from the current study add to these inconsistent findings through demonstration of a trend of improvement but not enough to support CCPT as an intervention for the mindful expression of attention. Future research exploring the use of CCPT with the mindful definition of attention is recommended.

In contrast to the outcomes related to attention, the mindful expressions of openness and curiosity appeared to be positively related to participation in CCPT. Openness and curiosity were two of the mindfulness factors chosen for inclusion in the current study because of their similarities to the goals of CCPT. Children from disadvantaged backgrounds often learn from their life experiences and traumatic experiences that they cannot fully trust the world around them. They may be hesitant to engage with their environment and may be cautious of establishing and engaging in relationships with others as a result of those experiences. According to Landreth (2012) one of the primary goals of CCPT is for the child to "experience a feeling of control" (pp. 84-85), while simultaneously developing a therapeutic relationship with the play therapist, which is the essential factor for change and growth (Axline, 1947; Landreth, 2012).

In CCPT, the play therapist seeks to engage with the child to establish trust, a feeling of safety, and a feeling of permissiveness in the playroom, utilizing facilitating creativity, esteem building/encouraging, and facilitating relationship responses, among others, to convey to the child that they can fully explore the environment and self (Landreth, 2012). An outcome of CCPT, therefore, may be that the child begins to feel safer and more trusting in relationships and environments outside of the playroom. Consequently, the child may be encouraged and receptive to engage and interact with the environment in more adaptive ways.

Higher scores on the openness factor of mindfulness are reflective of a higher degree of interest the child shows others and tasks. For example, the child is welcoming and responsive to

others as well as to activities and is open to engaging with all peers and tasks. Because children from disadvantaged backgrounds may be hesitant to engage with others, a positive outcome of CCPT would be a higher level of openness, an outcome tentatively supported by the findings in the current study.

Similarly, a higher degree of curiosity on the curiosity factor of mindfulness reflects a child's greater degree of inquiry and engagement with tasks and objects. For example, a child with a high level of curiosity would try new ways of engaging with objects in novel ways, experimenting with the way they interact with their environment. The child might ask a variety of questions regarding the task at hand and experiment with interacting with the object in novel ways which were not initially presented to them. A high degree of curiosity, therefore, would reflect a level of comfort and trust in the environment, which would be indicative of growth in CCPT.

Overall, while the findings of this study did not result in statistically significant findings on any of the four mindfulness factors analyzed (an outcome likely influenced by small sample size), the practically significant findings suggest one interpretation that participation in CCPT may influence children's levels of mindfulness. Specifically, according to the practically significant findings, participation in CCPT resulted in increases in reported children's levels of openness and curiosity when compared with children in the waitlist control group. This study is unique in that it is the first study to examine the influence of CCPT on the mindful expressions of children; results suggest that it may be beneficial to continue to examine how CCPT influences mindfulness levels in children.

Social-Emotional Competencies

There are many benefits to developing social-emotional competence in preschool,

including enhancing kindergarten readiness, kindergarten achievement, and academic development (Arnold et al., 2012; Denham et al., 2014; Torres et al., 2015). Overall, in the current study CCPT therapists sought to create an environment whereby Head Start preschool children were able to develop and enhance their social-emotional competencies within the therapeutic relationship.

For overall social emotional competence, children in the CCPT group were reported to show large practically significant improvement compared to children in the control group. Of particular note is that while the children in CCPT group had improved scores in overall social emotional competencies, the children in the control group were reported to have lower scores. Among the three social emotional factors, self-regulation/social competence resulted in small effect size while emotional knowledge/expression and empathy/responsibility resulted in large effect sizes. Specifically, the empathy/responsibility factor resulted in statistically significant improvement with a very large effect for children in CCPT as compared with children in the control group.

Preschool aged-children are just beginning to have the ability to describe their emotions with words and may therefore have difficulty expressing themselves (American Academy of Pediatrics, 2019; Balch, 2016). The climate of the CCPT relationship is one in which there is a focus on understanding and reflecting children's feelings (Axline, 1947). The emphasis on allowing children the ability to express all emotions, both positive and negative feelings, allows children the ability to feel free to express and process life events and feelings within the playroom, while the therapist responds with a conveyance of understanding and empathy, thereby potentially facilitating children's ability to understand and express their emotions.

While recognizing and understanding others' emotions is beneficial for children of any

age, development of empathy is essential for preschool children. Because preschool children are just beginning to value and enter into relationships with peers, development of empathy is essential in order to have successful interpersonal relationships (American Academy of Pediatrics, 2019; Balch, 2016; Dillman Taylor, 2016; Lee, 2016). Furthermore, The Head Start Early Learning Outcomes Framework (Administration for Children & Families, 2015), which details the tasks essential for young children's academic and long-term success, indicates children should be able to engage in positive social interactions with other youth and develop at least one to two friendships by 5 years of age, further indicating the importance of empathy development in the preschool years.

CCPT may facilitate the development of children's empathy because one of the foundational six necessary and sufficient conditions in person-centered theory is the therapist's level of empathic understanding for the client (Rogers, 1957). Therefore, through the therapeutic relationship with the play therapist, the child is provided an environment in which "there is an underlying message that the client's world is a valuable world, one in which the therapist has the utmost respect for the client's experience and abilities" (Ray, 2011, pp. 66-67). Landreth (2012) noted that while empathic understanding is one of the most difficult factors in CCPT, it is also the most significant.

Previous research has supported the effectiveness of CCPT on increasing the empathy of children as reported by parents (Cheng & Ray, 2016; Wilson & Ray, 2017); however, previous research using teacher report has not found CCPT to have an effect on enhancing the empathy of elementary-aged children or on strengthening empathy of preschool children. The current study findings suggest that teachers observed development of social-emotional competencies at greater levels in the CCPT intervention group when compared to children not receiving services among

Head Start preschool students, specifically those referred for behavioral and academic concerns.

Limitations and Recommendations for Future Research

The current findings offer valuable information regarding the effectiveness of CCPT on strengthening mindful expressions of children's dispositional mindfulness and increasing social-emotional competencies; however, there are also important and relevant limitations to consider in order to accurately interpret the results of this study. Because the study was exploratory in nature, the generalizability of findings is limited (Purswell & Ray, 2014). The sample size of the current study was 23 participants, providing a limitation of the study and potential relevancy of the findings because small sample sizes are less likely to produce statistically significant results (Thompson, 2002). As Purswell and Ray (2014) recommended, promising pilot studies may be used to develop larger studies that may be more widely generalizable. In the current study, confidence intervals for difference scores represented a wide range indicating that results may have been impacted by large gains or decreases among the sample. It may be beneficial for future researchers to continue to explore the relationship between CCPT and the mindful expressions and social-emotional competencies of preschool children with a larger sample size.

Another limitation of the current study includes the use of the C-OMM assessment. The C-OMM assessment is a newly developed instrument, has been utilized in a small number of studies, and is still undergoing developments. Furthermore, the C-OMM was not originally designed as a pre-post test instrument, as it was initially designed to measure children's growth in mindfulness over time (Lemberger-Truelove & Zieher, 2019). Additionally, the current study is the first to examine the effects of CCPT on the mindful expressions of children. While one meta-analysis has found adult levels of mindfulness may change as a result of participating in nonmindfulness-based interventions (Xia et al., 2019), results from this pilot study indicate that

more research needs to be conducted to explore non-directive interventions. A recommendation for future research is to continue examining the relationship between participation in CCPT and levels of mindfulness in children, potentially replicating the study with a larger sample size and with additional assessments such as a mindfulness assessment that utilizes parent report.

Conclusion

Preschool children from disadvantaged backgrounds often face increased hardships throughout their lives as a result of being disadvantaged, such as difficulty developing social-emotional competencies, difficulty with school functioning, and problematic behaviors (Bethell et al., 2014; Blodgett & Lanigan, 2018; Cronholm et al., 2015; Crouch et al., 2019; Hinojosa et al., 2019; Jimenez et al., 2016; Kerker et al., 2015; Ray et al., 2020). Due to the significance of the challenges disadvantaged preschool children face, the current study was designed to support the implementation and effectiveness of counseling with children from disadvantaged backgrounds.

The statistically significant findings indicated that preschool children's levels of empathy and responsibility were impacted as a result of participation in CCPT, as reported by teachers, when compared with the waitlist control group; practically significant findings revealed that CCPT may influence specific mindful expressions including curiosity and openness as well as overall social-emotional competence, emotional knowledge and expression, and empathy and responsibility in Head Start preschool children. While the lack of statistically significant findings may be attributed to a number of factors including small sample size, limitations in teacher reporting, as well as the inclusion of a newly developed instrument being used to assess mindful expressions, the findings nonetheless suggest CCPT may influence specific mindful expressions

and social emotional competencies of Head Start preschool students and needs further exploration.

References

Administration for Children & Families (2015). *Head start early learning outcomes framework: Ages birth to five*. https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/elof-ohs-framework.pdf

Arnold, D. H., Kupersmidt, J. B., Voegler-Lee, M. E., & Marshall, N. A. (2012). The association between preschool children's social functioning and their emergent academic skills. *Early Childhood Research Quarterly, 27*, 376-386. https://doi.org/10.1016/j.ecresq.2011.12.009

Axline, V. (1947). *Play therapy*. New York: Ballantine

Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs, 33*, 2106-2115. https://doi.org/10.1377/hlthaff.2014.0914

Blalock, S. M., Lindo, N., & Ray, D. C. (2019). Individual and group child-centered play therapy: Impact on social-emotional competencies. *Journal of Counseling & Development, 97*, 238-249. https://doi.org/ 10.1002/jcad.12264

Blodgett, C., & Lanigan, J. D. (2018). The association between adverse childhood experiences (ACE) and school success in elementary school children. *School Psychology Quarterly, 33*(1), 137-146. https://doi.org/10.1037/spq0000256

Bratton, S. C., Ray. D., Rhine, T., & Jones, L. (2005). The efficacy of play therapy with children: A meta-analytic review of treatment outcomes. *Professional Psychology: Research and Practice, 36*(4), 376-390. https://doi.org/10.1037/0735-7028.36.4.376

Bratton, S. C., Ceballos, P. L., Sheely-Moore, A. I., Meany-Walen, K., Pronchenko, Y., & Jones, L. D. (2013). Head start early mental health intervention: Effects of child-centered play therapy on disruptive behaviors. *International Journal of Play Therapy, 22*(1), 28-42. https://doi.org/10.1037/a0030318

Chadwick, J., & Gelbar, N. W. (2016). Mindfulness for children in public schools: Current research and developmental issues to consider. *International Journal of School and Educational Psychology, 4*(2), 106-112. https://doi.org/10.1080/21683603.2015.1130583

Cheng, Y., & Ray, D. C. (2016). Child-centered group play therapy: Impact on social-emotional assets of kindergarten children. *The Journal for Specialists in Group Work, 41*(3), 209-237. https://doi.org/10.1080/01933922.2016.1197350

Collaborative for Academic, Social, and Emotional Learning (CASEL; 2021, May 31). *What is SEL?* https:// casel.org/what-is-sel/

Cronholm, P. F., Forke, C. M., Wade, R., Bair-Merritt, M. H., Davis, M., Harkins-Schwarz, M., Pachter, L. M., & Fein, J. A. (2015). Adverse childhood experiences: Expanding the concept of adversity. *American Journal of Preventive Medicine, 49*(3), 354-361. https://doi.org/10.1016/j.amepre.2015.02.001

Crouch, E., Probst, J. C., Radcliff, E., Bennett, K. J., & McKinney, S. H. (2019). Prevalence of adverse childhood experiences (ACEs) among US children. *Child Abuse & Neglect, 92*, 209-218. https://doi.org/10.1016/j.chiabu.2019.04.010

de Winter, J. C. F. (2013). Using the student's t-test with extremely small sample sizes. *Practical Assessment, Research & Evalaution, 18*(10), 1-12. https://doi.org/10.7275/e4r6-dj05

Denham, S. A., Bassett, H. H., Zinsser, K., & Wyatt, T. M. (2014). How preschoolers' social-emotional learning predicts their early school success: Developing theory- promoting, competency-based assessments. *Infant and Child Development, 23*, 426-454. https://doi.org/10.1002/icd.1840

Felver, J. C., Tipsord, J. M., Morris, M. J., Racer, K. H., & Dishion, T. J. (2017). The effects of mindfulness-based intervention on children's attention regulation. *Journal of Attention Disorders, 21*(10), 872-881. https://doi.org/10.1177/1087054714548032

Feuerborn, L. L. & Gueldner, B. (2019). Mindfulness and social-emotional competencies: Proposing connections through a review of the research. *Mindfulness, 10*, 1707-1720. https://doi.org/10/1007/s12671-019-01101-1

Flook, L., Smalley, S. L., Kitil, M. J., Galla. B. M., Kaiser-Greenland, S., Locke, J., Ishijima, E., & Kasari, C. (2010). Effects of mindful awareness practices on executive functions in elementary school children. *Journal of Applied School Psychology, 26*(1), 70-95. https://doi.org/10.1080/15377900903379125

Flook, L., Golberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. *Developmental Psychology, 51*(1), 44-51. https://doi.org/10.1037/a0038256

Greenberg, M. T., & Harris, A. R. (2012). Nurturing mindfulness in children and youth: Current state of research. *Child Development Perspectives, 6*(2), 161-166. https://doi.org/10.1111/j.1750-8606.2011.00215.x

Hinojosa, M. S., Hinojosa, R., Bright, M, & Nguyen, J. (2019). Adverse childhood experiences and grade retention in a national sample of US children. *Sociological Inquiry, 89*(3), 401-426. https://doi.org/10.1111/soin.12272

Hozel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual

and neural perspective. *Perspectives on Psychological Science, 6*(6), 537-559. https://doi.org/10.1177/1745691611419671

Jimenez, M. E., Wade Jr., R., Lin, Y., Morrow, L. M., & Reichman, N. E. (2016). Adverse experiences in early childhood and kindergarten outcomes. *Pediatrics, 137*(2), 1-9.

Jones, D., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health, 105*(11), 2283-2290. https://ajph.aphapublications.org/doi/10.2105/AJPH.2015.302630

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*(2), 144-156. https://doi.org/10.1093/clipsy/bpg016

Kallapiran, K., Koo, S., Kirubakaran, R., & Hancock, K. (2015). Review: Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: a meta-analysis. *Child and Adolescent Mental Health, 20*(4), 182-194. https://doi.org/10.1111/cahm.12113

Kerker, B. D., Zhang, J., Nadeem, E., Stein, R. E. K., Hurlburt, M. S., Heneghan, A., Landsverk, J., & Horwitz, S. M. (2015). Adverse childhood experiences and mental health, chronic medical conditions, and development in young children. *Academic Pediatrics, 15*(5), 510-516.

Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., Chapleau, M., Paquin, K., & Hofmann, S. G. (2013). Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review, 33*, 763-771. https://doi.org/10.1016/j.cpr.2013.05.005

Kram, K. (2019). *Child-centered play therapy and adverse childhood experiences: Effectiveness on impulsivity and inattention*. (Publication No. 27592365). [Doctoral dissertation, University of North Texas]. ProQuest Dissertations and Theses Global.

Landreth, G. L. (2012). *Play therapy: The art of the relationship* (2nd ed.). New York, NY: Routledge.

Lawlor, M. S. (2016). Mindfulness and social emotional learning (SEL): A conceptual framework. In K. A. Schonert-Reichl & R. W. Roeser (Eds.), *Handbook of mindfulness in education* (pp. 65-80). Springer-Verlag. https://doi.org/10.1007/978-1-4939-3506-2_5

Lemberger-Truelove, M. E., Carbonneau, K. J., Atencio, D. J., Zieher, A. K., & Palacios, A. F. (2018). Self-regulatory growth effects for young children participating in a combined social and emotional learning and mindfulness-based intervention. *Journal of Counseling & Development, 96*, 289-302. https://doi.org/10.1002/j.1556-6676.2014.00000.x

Lemberger-Truelove, M. E., Carbonneau, K. J., Zieher, A. K., & Atencio, D. J. (2019). Support for the development and use of the child observation of mindfulness measure (C-OMM). *Mindfulness, 10*(7), 1406-1416. https://doi.org/10.1007/s12671-019-1094-5

Lin, Y., & Bratton, S. C. (2015). A meta-analytic review of child-centered play therapy approaches. *Journal of Counseling & Development, 93*, 45-58. https://doi.org/10.1002/j.1556-6676.2015.00180.x

Murano, D., Sawyer, J. E., & Lipnevich, A. A. (2020). A meta-analytic review of preschool social and emotional learning interventions. *Review of Educational Research, 90*(2), 227-263. https://doi.org/10.3102/0034654320914743

Palacios, A. F. & Lemberger-Truelove, M. E. (2019). A counselor-delivered mindfulness and social-emotional learning intervention for early childhood educators. *Journal of Humanistic Counseling, 58*, 184-203. https://doi.org/10.1002/johc.12119

Poehlmann-Tynan, J., Vigna, A. B., Weymouth, L. A., Gerstein, E. D., Burnson, C., Zabransky, M, Lee, P., & Zahn-Waxler, C. (2016). A pilot study of contemplative practices with economically disadvantaged preschoolers: Children's empathic and self-regulatory behaviors. *Mindfulness, 7*, 46-58. https://doi.org/10.1007/s12671-015-0426-3

Purswell, K. E., & Ray. D. C. (2014). Research with small samples: Considerations for single case and randomized small group experimental designs. *Counseling Outcome Research and Evaluation, 5*(2), 116-126. https://doi.org/10.1177/2150137814552474

Ravitch, N. K. (2013). *Development and preliminary validation of the social-emotional assets and resiliency scale for preschool*. (Publication No. 3600108). [Doctoral dissertation, University of Oregon]. ProQuest Dissertations and Theses Global.

Ray, D., Schottelkorb, A., & Tsai, M. (2007). Play therapy with children exhibiting symptoms of attention deficit hyperactivity disorder. *International Journal of Play Therapy, 16*, 95-111. doi:10.1037/1555-6824.16.2.95

Ray, D. C. (2011). *Advanced play therapy: Essential conditions, knowledge, and skills for child practice*. New York, NY: Routledge.

Ray, D. C., Armstrong, S. A., Balkin, R. S., & Jayne, K. M. (2015). Child-centered play therapy in the schools: Review and meta-analysis. *Psychology in the Schools, 52*(2), 107-123. https://doi.org/10.1002/pits.21798

Ray, D. C., Purswell, K., Haas, S., & Aldrete, C. (2017). Child-centered play therapy research integrity checklist: Development, reliability, and use. *International Journal of Play Therapy, 26*(4), 207-217. https://doi.org/10.1037/pla0000046

Ray, D. C., Angus, E., Robinson, H., Kram, K., Tucker, S., Haas, S., & McClintock, D. (2020). Relationship between adverse childhood experiences, social-emotional competencies, and problem behaviors among elementary-aged children. *Journal of Child and Adolescent Counseling*, 1-12. https://doi.org/10.1080/23727810.2020.1719354

Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology, 21*, 95-103.

Schottelkorb, A., & Ray, D. (2009). ADHD symptom reduction in elementary students: A single-case effectiveness design. *Professional School Counseling, 13*, 11-22.

Shute, R. H. (2019). Schools, mindfulness, and metacognition: A view from developmental psychology. *International Journal of School & Educational Psychology, 7*(51), 123-136. https://doi.org/10.1080/21683603.2018.1435322

Taylor, L. & Ray, D. C. (2021). Child-centered play therapy and social-emotional competencies of African American children: A randomized controlled trial. *International Journal of Play Therapy, 30*(2), 74-85. https://doi.org/10.1037/pla0000152

Texas Education Agency. (2020, March 29). *General prekindergarten FAQ. Early childhood education*. https://tea.texas.gov/academics/early-childhood-education/general-prekindergarten-faq

Thompson, B. (2002). "Statistical", "practical", and "clinical": How many kinds of significance do counselors need to consider? *Journal of Counseling & Development, 80*, 64-71. https://doi.org/10.1002/j.1556-6678.2002.hb00167.x

Torres, M. M., Domitrovich, C. E., & Bierman, K. L. (2015). Preschool interpersonal relationships predict kindergarten achievement: Mediated by gains in emotion knowledge. *Journal of Applied Developmental Psychology, 39*, 44-52. https://doi.org/10.1016/j.appdev.2015.04.008

Treleaven, D. A. (2018). *Trauma-sensitive mindfulness: Practices for safe and transformative healing*. W. W. Norton & Company.

Van Dam., N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., Gorchov, J., Fox, K. C. R., Field, B. A., Britton, W. B., Brefczynski-Lewis, J. A., & Meyer. D. E. (2018). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on Psychological Science, 13*(1), 36-61. https://doi.org/10.1177/1745691617709589

Wilson, B. J. & Ray, D. (2018). Child-centered play therapy: Aggression, empathy, and self-regulation. *Journal of Counseling and Development, 96*(4), 399-409. https://doi.org/10.1002/jcad.12222

Xia, T., Hu. H., Seritan, A. L., & Eisendrath, S. (2019). The many roads to mindfulness: A review of nonmindfulness-based interventions that increase mindfulness. *The Journal of Alternative and Complementary Medicine, 25*(9), 874-889. https://doi.org/10.1089/acm.2019.0137

Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools- a systematic review and meta-analysis. *Frontiers in Psychology, 5*(603), 1-20.

Table 1

Mean Scores and Standard Deviations on C-OMM Factors

		Intervention Group (n=11)		Waitlist Control Group (n=12)	
		Pretest	Posttest	Pretest	Posttest
Sustained Attention	*M*	5.55	6.30	5.33	5.75
	SD	1.54	0.51	1.68	0.57
Quality of Attention	*M*	5.33	5.85	4.88	5.03
	SD	1.26	0.96	1.02	0.94
Openness	*M*	5.27	5.97	5.11	5.25
	SD	1.37	0.64	1.00	0.89
Curiosity	*M*	2.12	3.61	2.03	2.99
	SD	1.13	1.78	1.28	1.57

Note. An increase in mean scores on the C-OMM factors indicates improvement in mindful expressions.

Table 2

Mean Scores and Standard Deviations on SEARS-Pre Factors & Total Score

		Intervention Group (n=10)		Waitlist Control Group (n=12)	
		Pretest	Posttest	Pretest	Posttest
Self-Regulation/ Social Competence	*M*	13.70	16.90	11.7	12.67
	SD	9.32	7.61	4.48	4.23
Emotional Knowledge/ Expression	*M*	8.60	9.90	10.33	8.58
	SD	6.85	5.51	5.60	5.62
Empathy/Responsibility	*M*	4.30	5.30	4.83	4.0
	SD	3.34	3.53	2.55	2.52
Total Score	*M*	26.60	32.10	26.33	25.25
	SD	18.51	15.67	11.26	10

Note. An increase in mean scores on the SEARS-Pre indicates improvement in social-emotional competencies.

APPENDIX A

LITERATURE REVIEW

The following includes relevant literature and research related to: (a) mindfulness (b) social-emotional competencies (c) preschoolers and their characteristics and typical development, (d) child-centered play therapy (CCPT), and (e) CCPT, mindfulness, social and emotional competencies, and preschoolers. The section on social and emotional competencies includes the definition of social and emotional competence and section on literature supporting the benefits of social and emotional competencies. The review of mindfulness includes relevant definitions of mindfulness, expressions of mindfulness, positive outcomes of mindfulness and consequences of lack of mindfulness, as well as a review of current interventions used for mindfulness. In the preschooler section, the characteristics of preschoolers, normal development of preschoolers, and data of preschoolers are explored. The section on CCPT includes the theoretical components of CCPT, a review of the effectiveness of CCPT, and a discussion of the neurobiological benefits of CCPT. Lastly, the final section explores CCPT as an intervention to enhance mindful expressions and social emotional competencies in preschoolers.

Mindfulness

Mindfulness was first developed and utilized as a religious form of contemplative practice in Buddhism, with the first writings focused on mindfulness dating back 2,500 years (Kabat-Zinn, 2003; Siegel et al., 2009). Mindfulness was termed "*sati"* in ancient Buddhist writings, and was defined as awareness, attention, and remembering. Buddhist "*sati*", translated to English as "mindfulness", was cultivated in order to observe moment to moment suffering, and was practiced in attempts to alleviate suffering, cultivate wisdom, and develop insight.

Contemporary mindfulness, mindfulness developed in Western countries including the United States, began with Kabat-Zinn and his colleagues development of Mindfulness-Based Stress Reduction (MBSR) in 1979 (Kabat-Zinn, 2003; Shapiro & Carlson, 2009). Since that

time, mindfulness has continued to develop, and today there are many different types of mindfulness practices in Western society. Additionally, there continues to be an ever-growing body of research on the effectiveness of mindfulness-based interventions.

While researchers and theorists alike have disagreements regarding its effectiveness and utility across all populations, mindfulness continues to be a popular practice. Currently, mindfulness practices are implemented in educational settings, with individuals throughout the lifespan, and prescribed for treatment for a wide variety of health concerns. In this section, the definition of mindfulness, specific child expressions of mindfulness, outcomes of mindfulness, consequences of lack of mindfulness, and current interventions used for mindfulness will be explored.

Definition of Mindfulness

There are many operational definitions of mindfulness, even when focusing specifically on secular-based, Western developed mindfulness practices (Baer et al., 2006; Bishop et al., 2004; Kabat-Zinn, 2003; Nillson & Kazemi, 2016). For the purposes of this study, the most common secular Western definition of mindfulness was sought. Kabat-Zinn is the most frequently cited individual and recognized by many for the development and Westernization of mindfulness; therefore, his mindfulness definition will be utilized. Kabat-Zinn (2003) operationally defined mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment." (Kabat-Zinn, 2003, p. 145).

Other mindfulness definitions vary slightly from Kabat-Zinn's definition. For example, Nilsson and Kazemi (2016) analyzed 33 studies that included mindfulness definitions in them in an attempt to create one definition representative of all studies. From the analysis, they found

four themes in the definitions, which included the following: attention and awareness, present-centeredness, external events, cultivation, and ethical-mindedness. The operational definition of mindfulness proposed by Nilsson and Kazemi resulting from their analysis was "a particular type of social practice that leads the practitioner to an ethically minded awareness, intentionally situated in the here and now (Nillson & Kazemi, 2016, p. 190). While their operational definition was grounded in research, the articles analyzed by Nillson and Kazemi (2016) included Buddhist and non-Buddhist practitioners, resulting in a comprehensive definition including all facets of mindfulness and not specifically focused on Western contemporary practices.

In an attempt to understand the components of mindfulness as a multifaceted construct, Baer et al. (2006) examined mindfulness assessments to determine similarities across them. In their analysis, Baer et al. (2006) found five facets of mindfulness: observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience. From these findings, Baer and colleagues created an assessment called the "Five Facet Mindfulness Questionnaire", which has been used in subsequent research examining mindfulness facets with differing populations (Baer et al., 2006; Baer et al., 2008; Brett et al., 2018; Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011; Roche et al., 2019).

Shapiro et al. (2006) also attempted to describe the mechanisms of change in mindfulness, based off of Kabat-Zinn's operational definition of mindfulness. The three mechanisms of change, as posited by Shapiro and colleagues (2006), include intention, attention, and attitude. Intention refers to the purpose behind why one is practicing mindfulness. Attention refers to the focus and ability to pay attention to both internal and external experience in the present moment. Attitude refers to how individuals focus in mindfulness, which should be with a nonjudgmental and accepting stance towards all internal and external experiences. Shapiro and

colleagues theorized that intentionally attending with a nonjudgmental and accepting attitude leads to a shift in perception, results in change in self-regulation, values clarification, exposure, and cognitive, emotional, and behavioral flexibility (Shapiro et al., 2006).

Mindfulness interventions are specific, structured ways to engage in mindfulness such as mindfulness-based cognitive therapy and mindfulness-based stress reduction (Kabat-Zinn, 2003). However, Kabat-Zinn (2003) noted mindfulness interventions are not essential in order to learn and practice mindfulness, nor are they essential in order to enhance mindfulness. Rather, mindful expressions, which are specific expressions of mindfulness, can be observed in daily experiences and behaviors and not solely during mindful practices (Malinowski, 2008). Mindful expressions, therefore, are outward behaviors that demonstrate levels of mindfulness in individuals (Malinowski, 2008).

Mindfulness interventions and techniques cultivate mindfulness, meaning they develop or enhance mindfulness. Dispositional mindfulness, also known as trait mindfulness, refers to innate, personality based, stable characteristics of mindfulness in which individuals possess regardless of participation in mindfulness interventions or techniques (Rau & Williams, 2016). Dispositional mindfulness has been the focus of research aimed to understand the relationship between these specific trait mindfulness components and mental health symptoms to determine specifically how mindfulness interventions work, and if strengthening certain components leads to resilience (Beshai & Parmar, 2019; Brett et al., 2018; Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011; Roche et al., 2019). Furthermore, one recent meta-analysis has also found that mindfulness may change as a result of nonmindfulness-based interventions (Xia et al., 2019), suggesting that mindfulness-based interventions are not essential to strengthening mindfulness facets.

Theorists and researchers alike have discussed concerns regarding the lack of consensus of a mindfulness definition (Bishop et al., 2004; Van Dam et al., 2018). Because one unanimous definition of mindfulness does not exist, the development and resulting empirical research regarding the effectiveness of mindfulness is therefore thwarted. Specifically, advocates for a consensus definition argue that the development of best practices and the foundation for a strong evidence-base for mindful practices has been stilted because of the lack of one specific and descriptive definition (Van Dam et al., 2018). Hence, one limitation of resulting mindfulness intervention studies is a lack of consensus on an operational definition of "mindfulness".

Specific Expressions of Mindfulness, Child-Focused

Western mindfulness practices were initially developed for the purpose of use with adults, and since gaining popularity have expanded for use with children. For that reason, empirical research focusing on mindfulness with children is limited (Flook et al., 2010; Flook et al., 2015; Kallapiran et al., 2015; Khoury et al., 2013; Lemberger-Truelove et al., 2018; Poehlmann-Tynana et al., 2016). However, Bishop and colleagues (2004) detailed description of mindfulness has been used to create mindfulness assessments used for children today, indicating that the qualities of mindfulness persist across the lifespan (Lemberger-Truelove & Zieher, 2019; Lemberger-Truelove et al., 2019).

Bishop and colleagues (2004) further developed the definition of mindfulness by describing the components of mindfulness. Self-regulation of attention and orientation to experience are the two main components of mindfulness proposed by Bishop et al. (2004). Self-regulation of attention is defined as focusing on present moment thoughts, feelings and sensations, and includes three components: sustained attention, attention switching, and the inhibition of elaborative processing (Bishop et al., 2004, p. 233). Orientation of experience refers

to an ability to remain inquisitive of where the mind goes and experiences in the moment, and includes curiosity, openness, and acceptance.

Lemberger-Truelove and colleagues (2019) stated assessment of children's mindfulness requires a developmentally appropriate instrument which relies on observation of children instead of children's self-report as children may lack the self-awareness necessary for accurate and measurable results. Therefore, a developmentally appropriate mindfulness assessment for children ideally includes observation of children's outward behavior. Lemberger-Truelove and Zieher (2019) created the first child-focused, developmentally-appropriate, and observational assessment for preschool aged children to measure mindfulness.

Outcomes of Mindfulness

Mindfulness facets and mindfulness as a whole have been argued to enhance overall well-being, with specific positive outcomes vast in reporting, but limited in evidence supporting such claims. Hozel and colleagues (2011) theorized five specific components mindful meditation is reported to enhance and subsequently explored the evidence-base surrounding the reported outcomes, which lead to an overall process of self-regulation including the following: attention regulation, body awareness, emotional regulation, self-compassion, and change in perspective of the self. Emotional regulation and attention regulation are the only two of the five claims that have been substantiated in research (Hozel et al., 2011), while body awareness, change in perspective of self, and self-compassion lack direct empirical support.

According to Hozel and colleagues (2011), attention regulation is defined as the ability to maintain focus on an object while ignoring distractions and can be referred to as conflict monitoring or executive attention. Research has supported the notion that mindfulness interventions do result in enhanced attention (Felver et al., 2017; Flook et al., 2010; Zenner et al.,

2014). Zenner and colleagues (2014) conducted a meta-analysis on the effectiveness of mindfulness-based interventions in schools, including 24 studies in their analysis. Results from the meta-analysis indicated the domain cognitive performance, quantified by attention tests, had the largest effect size of all the domains calculated in the meta-analysis, with a weighted large and significant effect size of g=0.80 for controlled studies included in the analysis.

Flook and colleagues (2010) conducted a randomized controlled trial with 64 second and third grade children. Children in the intervention group participated in mindfulness awareness practices (MAPs) occurring 30 minutes, twice weekly, for 8 weeks total. Children in the intervention group who had low executive functioning prior to the onset of treatment as measured by the Behavior Rating Inventory of Executive Function (BRIEF) showed greater improvements in executive functioning when compared with children in the control group. Findings from Flook and colleagues (2010) suggest that mindfulness practices may aid in strengthening children's executive functioning.

Felver and colleagues (2017) also explored the effects of a mindfulness intervention with children and conducted a randomized controlled trial with 47 parent-child dyads consisting of children ages 9-12 years old. Parent-child dyads were randomly assigned to the Mindful Family Stress Reduction (MFSR) intervention group or the waitlist control group. Parent-child dyads in the intervention group participated in 90-minute weekly groups for 8 weeks total, which included didactic and experiential mindfulness components. Children in the intervention group demonstrated statistically significant improvements on the conflict monitoring condition of the ANT, an assessment used to measure attention, when compared to children in the waitlist control group. The ANT conflict monitoring condition measures an individual's ability to focus their attention on an object while presented with distractions. Results from Felver and colleagues

(2017) study, therefore, suggest that mindfulness practices may benefit children's attention regulation.

Emotional regulation is defined as the ability to regulate emotions and emotional responses. Gross (2014) noted that individuals may attempt to regulate emotions when they are "of the wrong type, intensity, or duration for a given situation" (p. 3). Mindfulness literature has supported the claim that mindfulness practice results in enhanced emotional regulation (Flook et al., 2015; Maynard et al., 2017). Maynard and colleagues (2017) conducted a meta-analysis on the effects of school-based MBIs on cognitive, behavioral, socio-emotional and academic achievement outcomes with youth. While 61 studies were included in the review, only 35 of the studies were randomized or quasi-experimental and therefore only the 35 studies are included in the meta-analysis. Results from Maynard and colleagues (2017) meta-analysis indicated that school-based MBIs had a small and statistically significant effect on socioemotional outcomes ($g=0.22$, $p <.001$).

Flook and colleagues (2015) conducted a randomized controlled trial on the effectiveness of a mindfulness-based curriculum with 68 preschool children. Participants were randomly assigned to the intervention or control group; intervention group participants participated in a 12-week mindfulness-based Kindness curriculum. Teachers of children who participated in the study completed the Teacher Social Competence Scale for all participants pre-intervention and post-intervention; the Teacher Social Competence Scale consists of two subscales, a prosocial behavior subscale and an emotional regulation subscale. Results from Flook and colleagues (2015) study indicated children with lower levels of baseline functioning who participated in the intervention group showed larger improvements in social competence over time when compared

to the control group. Mindfulness interventions, therefore, may enhance children's emotional regulation (Flook et al., 2015; Maynard et al., 2017).

Baer et al. (2006) examined the relationship between mindfulness facets and psychological well-being. Psychological well-being consisted of 6 components and adult participants answered self-report questions in order to achieve an overall psychological well-being score. The six components of psychological well-being included self-acceptance, positive relationships with others, autonomy, environmental mastery, purpose in life, and personal growth. Individuals who reported higher mindfulness outcomes on 4 of the 5 facets of the five-facet mindfulness questionnaire had significantly and positively higher psychological well-being, indicating individuals who had higher levels of the four facets of mindfulness experienced higher levels of psychological well-being. Furthermore, meditation experience was significantly and positively correlated with four mindfulness facets; individuals with more meditation experience reported higher levels of mindfulness in the following facets: observing, describing, nonreactivity, and nonjudging. These results suggest that meditation experience may strengthen mindfulness facets, thereby contributing to increased psychological well-being.

Some theorists and researchers have cautioned that mindfulness interventions may have adverse effects (Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018). While all individuals may experience adverse effects from mindfulness practice (Van Dam et al., 2018), those who have experienced trauma may be at increased risk for adverse effects. Lindahl and colleagues (2017) conducted a qualitative study focused on examining the possible adverse effects of mindfulness training in which they interviewed 73 meditation practitioners to determine effects they or their clients experienced while practicing mindfulness. Practitioners reported adverse effects of mindfulness including fear, anxiety, panic, paranoia, re-experiencing

of traumatic memories, impairment in executive functioning, disintegration of conceptual meaning structures; delusions, irrational, or paranormal beliefs; increased agitation and irritability (Lindahl et al., 2017).

Lindahl and colleagues (2017) suggested that certain factors may have influenced the negative mindfulness outcomes, including practitioner trauma history and psychiatric conditions. Trealeaven (2018) theorized mindfulness meditation may heighten individual's symptoms of traumatic stress by leading individuals to relive and experience traumatic stimuli, including flashbacks, heightened emotional arousal, and dissociation. Trealeaven (2018) also suggested that mindfulness practices, when conducted with individuals who have experienced trauma, may potentially even lead to retraumatization. While some theorists and researchers have cautioned against the use of mindfulness interventions with specific populations such as those who have experienced trauma (Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018), such claims have been refuted by other theorists who have suggested that that mindfulness may reduce the adverse effects of childhood stress and trauma (Ortiz & Sibinga, 2017).

While theorists and researchers alike have argued that mindfulness interventions result in a variety of outcomes, including body awareness, emotional self-regulation, attention regulation, self-compassion, and change in perspective of self, only attention regulation and emotional self-regulation have research to support such outcomes (Hozel et al., 2011). Also, mindfulness facets have been examined separately from mindfulness intervention outcomes, with certain facets relating to psychological well-being (Baer et al., 2006). Some theorists and researchers have argued that mindfulness interventions may result in adverse effects when used with certain populations, including those who have experienced trauma (Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018). While these outcomes all relate to the practice of mindfulness and

its relationship with outcomes, research has also found relationships between dispositional mindfulness and outcomes outside of mindfulness interventions (Beshai & Parmar, 2019; Brett et al., 2018; Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011; Roche et al., 2019).

Dispositional/Trait Mindfulness

Dispositional mindfulness, also called trait mindfulness, is the personality-based characteristics of mindfulness that may be measured and reside in individuals who do not practice mindfulness (Rau & Williams, 2016). Recent research, including a meta-analysis examining the effectiveness of non-mindfulness-based interventions on mindfulness levels in individuals (Xia et al., 2019), as well as research examining the presence of dispositional mindfulness traits in individuals with mental health concerns (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011), have suggested that mindfulness levels may be strengthened and measured in individuals who do not practice mindfulness. Similarly, research has also suggested that strengthening dispositional mindfulness facets may result in healthy mental health functioning (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011). In this section, the details of recent research focused on dispositional mindfulness will be explored (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011; Xia et al., 2019).

Xia and colleagues (2019) conducted a meta-analysis reviewing non-mindfulness-based interventions that specifically examined pre- and postintervention mindfulness levels. Of the 69 non-mindfulness-based interventions included in the study, 36 showed no effect for change in mindfulness postintervention, while 13 had small effects, 3 had large effects, and 1 had a very large effect. Non-mindfulness-based interventions included in the studies examined in the meta-

analysis varied greatly, and included virtual reality, exposure therapy group, equine-assisted therapy, heart coherence training, wilderness excursion, and more. The intervention that resulted in the very large effect for increased mindfulness used a group hiking trip as the intervention. Furthermore, the three interventions that demonstrated large effects included physical exercise, equine-assisted therapy, and loving kindness meditation. Findings from the Xia and colleagues (2019) meta-analysis suggest that mindfulness can be examined and possibly even change as a result of participation in non-mindfulness interventions.

Researchers have examined the relationship between dispositional mindfulness and certain mental health symptoms, indicating that adults who have high levels of mental health symptomology may actually have lower levels of dispositional mindfulness as reported on the Five Facet Mindfulness Questionnaire (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011). The relationship between the level of dispositional mindfulness and impulsivity, stress, anxiety symptoms, and depression symptoms are mostly found to be inversely related; those that reported higher levels of each of impulsivity, stress, anxiety, and depressive symptoms also reported lower levels of certain facets of mindfulness traits, with the exception of the observing facet. Currently, researchers have only examined dispositional mindfulness in adults (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011).

Cash and Whittingham (2010) sought to discover which of the five facets of mindfulness, as measured by the Five Facets of Mindfulness Questionnaire, predicted psychological well-being, stress, anxiety, and depressive symptoms in a group of nonmeditators and meditators. Nonjudging, which indicates the degree to which individuals are able to accept inner experiences without judgment, was inversely related to depression symptoms, anxiety, and stress (Cash & Whittingham, 2010). Furthermore, act with awareness, the degree in which individuals are aware

of internal and external experiences in the present moment, was found to be inversely related to depression (Cash & Whittingham, 2010).

In a similar study, Peters and colleagues (2011) examined the relationship between self-reported mindfulness and impulsivity in a sample of university students, also measuring mindfulness with the Five Factor Mindfulness Questionnaire. Act with awareness and describing were both inversely related to impulsivity. Hence, individuals in the study who reported a high level of impulsivity also reported having a lesser awareness of internal and external experiences in the present moment as well as difficulty describing present moment experiences.

Desrosiers and colleagues (2013) examined the relationship between facets of mindfulness and anxiety and depression symptoms, measuring mindfulness facets with the Five Factor Mindfulness Questionnaire. Results indicated describing and nonreactivity were inversely related to anxiety symptoms, revealing individuals with heightened anxiety symptoms have a limited ability to describe present moment experience and experience internal experiences without reacting. Depressive symptoms were inversely related to describing, nonjudging, and nonreactivity facets of mindfulness; those with depressive symptoms had difficulty verbally expressing internal experiences, accepting experiences without judgment, and experiencing internal experiences without reacting to them. Observing, the degree to which individuals observe inner experiences, was unique among the Five Facets of Mindfulness in that it was positively related to anxious arousal (Desrosiers et al., 2013).

Lastly, some studies have examined the relationship between dispositional mindfulness and trauma (Beshai & Parmar, 2019; Roche et al., 2019), with one study focusing specifically on Adverse Childhood Experiences (ACEs; Brett et al., 2018). Beshai and Parmar (2019) found trait mindfulness appeared to moderate the relationship between childhood trauma and number of

months depressed; results indicated that among the participants who reported severe childhood trauma, those that had lower levels of mindfulness, as reported on the Mindfulness Attention Awareness Scale, also had the most severe and chronic depression. Roche and colleagues (2019) found higher levels of two specific mindfulness facets of the Five Factor Mindfulness Questionnaire, act with awareness and nonjudgment, related to decreased problematic behavior in a sample of college students with a history of childhood trauma. Results of both studies indicate that higher levels of mindfulness may serve as buffers to the deleterious effects of childhood trauma (Beshai & Parmar, 2019; Roche et al., 2019).

Brett and colleagues (2018) examined the role of mindfulness in the relationship between ACEs and alcohol use and consequences in a sample of 385 college students who reported alcohol consumption in the past 30 days. Results reported cumulative ACEs were negatively associated with dispositional mindfulness and positively related with alcohol consequences, indicating that those with increased ACEs had lower levels of dispositional mindfulness and also increased consequences resulting from alcohol consumption. Furthermore, researchers suggested that the two specific facets of mindfulness, acting with awareness and nonjudging, were related to decreased problematic behavior in the sample.

These findings also suggest that strengthening certain dispositional mindfulness facets, including acting with awareness, describing, nonreactivity, and nonjudging, might serve as a component of resilience, possibly lessening the impact of certain mental health symptoms (Cash & Whittingham, 2010; Desrosiers et al., 2013; Peters et al., 2011). Strengthening mindfulness facets, whether through mindfulness interventions or alternative methods, mays thereby serve as protective factors for those at greater risk of negative health outcomes, such as those who are

economically disadvantaged and therefore more susceptible to negative outcomes as a result of poverty.

Current Mindfulness Interventions

Western-based secular mindfulness has increased in popularity since the first mindfulness intervention was developed by Kabat-Zinn in 1979. Since that time, adaptations of mindfulness have been created to use with adults, children, and adolescents with a variety of health concerns, including adaptations for healthy functioning individuals who seek to better their lives (Borquist-Contol et al., 2019; Flook et al., 2010; Grossman et al., 2004; Kallapiran et al., 2015; Khoury et al., 2015; Lemberger-Truelove et al., 2018). Mindfulness-based stress reduction and mindfulness-based cognitive therapy were two of the first Western-based mindfulness interventions developed. With the evolution of secular mindfulness interventions has come consequences resulting from the exponential growth in popularity. In this section, current mindfulness interventions will be explored along with an examination of their use and limitations.

Mindfulness-Based Stress Reduction

Mindfulness-based stress reduction (MBSR) was the first mindfulness intervention created in the United States by Kabat Zinn and colleagues in 1979 at the University of Massachusetts Medical Center (Kabat-Zinn, 2003). The original goals of MBSR were twofold: to create a secular form of mindfulness to use with individuals who experienced stress, pain, and illness, and to serve as a model for other hospitals and medical centers to adopt for their own use to treat patients suffering with a variety of concerns. MBSR is an 8-week structured course intended for outpatient treatment (Shapiro & Carlson, 2009). The intensive MBSR training includes informal and formal practices and includes weekly meetings of 2 ½ to 3 hours in length

with a 6-hour silent retreat occurring between classes 6 and 7. Additionally, participants complete meditation and yoga at home for a total of 45 minutes, 6- days a week throughout the duration of the program. Techniques taught throughout the 8-weeks include body scan, sitting meditation, walking meditation, gentle yoga and informal daily mindfulness practices. The group also processes participants' experiences each week.

The effectiveness of MBSR with adults has been supported with two meta-analyses (Grossman et al., 2004; Khoury et al., 2015). Grossman and colleagues (2004) conducted a meta-analysis to examine the overall effectiveness of MBSR with adults, collecting 20 studies to be included in the analysis. Grossman et al. (2004) found MBSR resulted in improvements in psychological dimensions of quality of life scales, depression, anxiety, sensory pain, and physical impairment, with an overall mean effect size of 0.49. Khoury and colleagues (2015) conducted a systematic review of quantitative studies that used MBSR as an intervention with healthy adults and effect size estimates indicated the MBSR intervention had large effects on stress, moderate effects on anxiety, depression, distress, and quality of life, and small effects on burnout.

Mindfulness-Based Cognitive Therapy

Mindfulness-based cognitive therapy (MBCT) was developed in the late 1990s by cognitive therapists Teasdale, Williams, and Segal (Shapiro & Carlson, 2009). The primary purpose of MBCT was to prevent depression relapse, as at the time interventions existed to address depression, but none focused on the high rates of relapse prevalent with those who were diagnosed with depression. Therefore, Segal, Teasdale, and Williams partnered with Kabat-Zinn to create an adaptation of MBSR that integrates cognitive therapy components, thus being termed "Mindfulness-based cognitive therapy". MBCT is conducted in an 8-week format and consists of

a small group of participants. Didactic content in MBCT is focused specifically on depression, and techniques unique to MBCT include the "3-minute breathing space". One unique difference between MBCT and cognitive therapy is in MBCT participants are encouraged to accept all thoughts, not to change "distorted thinking" as in traditional cognitive therapy. The effectiveness of MBCT with adults who have recurrent depression has been supported in two meta-analyses (Chiesa & Serretti, 2011; Galante et al., 2012). However, Chiesa and Serretti (2011) noted that there was an absence of studies comparing the MBCT intervention to control groups, indicating a limitation of research supporting the effectiveness of MBCT with depressive patients.

Mindfulness Interventions with Children

Research examining the effectiveness of mindfulness interventions with children is more limited when compared to research regarding the effectiveness of mindfulness intervention with adults (Flook et al., 2010; Flook et al., 2015; Kallapiran et al., 2015; Khoury et al., 2013; Lemberger-Truelove et al., 2018; Poehlmann-Tynana et al., 2016). One reason for this may be the fact that popular mindfulness interventions, such as MBSR and MBCT were developed for use with adults (Kabat-Zinn, 2003; Shapiro & Carlson, 2009). Hence, mindfulness interventions for children are newly developed when compared to the interventions for adults and more varied in their structure and use. In this section, research focusing on mindfulness interventions with children will be explored. First, two meta-analyses examining the effectiveness of mindfulness interventions with children will be detailed (Kallapiran et al., 2015; Khoury et al., 2013). Subsequently, the research focused on the effectiveness of mindfulness interventions with preschoolers will be examined (Flook et al., 2015; Lemberger-Truelove et al., 2018; Poehlmann-Tynan et al., 2016).

A meta-analysis conducted by Kallapiran and colleagues (2015) examined eleven randomized controlled trials which implemented mindfulness-based interventions in their experimental groups to determine the impact of mindfulness-based interventions on the mental-health symptoms of children and adolescents. Children who participated in the mindfulness-based interventions showed improvements in mental health symptoms following participation in the interventions, including reductions in stress, anxiety, depressive symptoms, and increases in reported quality of life. Furthermore, because this study was unique in that it only examined randomized controlled trials, researchers were able to compare results from the experimental groups with the control groups; experimental groups with mindfulness-based interventions resulted in greater improvements when compared to nonactive controls; however, results from the experimental groups were comparable to results from other active interventions.

Khoury and colleagues (2013) included 209 studies in their meta-analysis on the effectiveness of mindfulness-based therapies with children. Of the 209 studies included in the analysis, 35 studies compared mindfulness-based therapies with other psychological treatments; results indicated mindfulness-based therapy was more effective than the psychoeducational interventions, supportive therapies, relaxation procedures, and imagery/suppression techniques used in the psychoeducational interventions. Mindfulness-based therapy was found to be effective when treating psychological disorders, physical conditions, and medical conditions, with mindfulness-based therapy having particularly large effects on anxiety and depression disorders.

Researchers have also focused exclusively on examining the effectiveness of mindfulness interventions with preschool children (Flook et al., 2015; Lemberger-Truelove et al., 2018; Poehlmann-Tynan et al., 2016). Flook and colleagues (2015) examined the effectiveness of a 12-

week mindfulness-based Kindness curriculum with 68 preschool children. Preschool children in the intervention group participated in a 12-week Kindness Curriculum, a prosocial skills training consisting of two 20 to 30-minute lessons each week. When comparing the classrooms of preschoolers that were randomly assigned to the mindfulness-based Kindness curriculum intervention with the waitlist control group classes, preschoolers in the intervention group showed larger gains in teacher-reported social competence as measured by the Teacher Social Competence Scale (Flook et al., 2015). Children in the intervention group had higher end-of-year grades and larger improvements in social competence when compared to children in the control group. Furthermore, teachers' final reports of children's social emotional competence in the intervention group were higher than for children in the control group. However, because the study utilized block randomization by classroom, one potential limitation of the findings may be that teachers had knowledge of the students' group assignment, which may have impacted how they rated the children on post-testing measures.

Poehlmann-Tynan and colleagues (2016) conducted a randomized controlled trial to examine the effectiveness of a mindfulness intervention with economically disadvantaged preschoolers. Similar to Flook and colleagues (2015), the Poehlmann-Tynan et al. (2015) study utilized block randomization; therefore, the results should be considered in light of the fact that entire preschool classrooms were assigned to either the treatment group or control group and not individual students. Children in the treatment group received the mindfulness intervention which was an adapted mindfulness curriculum, administered by trained instructors. The mindfulness intervention consisted of two 20 to 30-minute lessons per week for 12 weeks total, and utilized mindfulness-themed books and projects to teach participants mindfulness strategies including breathing, kindness and caring, and awareness of experiences. Results indicated that children in

the intervention group significantly improved their self-regulation skills when compared to the control group as indicated by the two self-regulation assessments administered, the Head-Toes-Knees Shoulders task and the Go/No-Go task. However, researchers in this study noted that because this was a pilot study, the significance level for main effects was set to $p<0.10$, which may be considered as an additional limitation of the study as significance is usually set to $p<.05$.

Lemberger-Truelove and colleagues (2018) examined the effectiveness of a combined social and emotional learning and mindfulness-based intervention with economically disadvantaged 3- and 4- year old preschool children. Preschool children in the treatment group participated in the intervention which consisted of an 8-week, counselor-led, structured SEL and MBI curriculum. The intervention included SEL and MBI activities including kindness songs, breathing and movement activities, and didactic instruction of skills. All preschool children included in the study were observed using the inCLASS observational assessment and Child-Observation of Mindfulness Measure (C-OMM; Lemberger-Truelove & Zieher, 2019). Results from the study indicated children in the intervention group demonstrated significant increases in self-regulatory outcomes as measured by the C-OMM, including task orientation and orientation to experience. Task orientation includes a child's level of engagement, self-reliance, and behavior control, while orientation to experience includes the child's curiosity, openness, and acceptance of their current experience.

One limitation of studies and meta-analyses examining the effectiveness of mindfulness interventions with children is a lack of manualized treatment. For example, Kallapiran and colleagues (2015) meta-analysis included eleven randomized control trials (RCTs), with a variety of interventions included in the RCTs. In the Kallapiran and collegues (2015) meta-analysis, 5 studies utilized Mindfulness Based Stress Reduction (MBSR), one used Mindfulness Based

Cognitive Therapy (MBCT), one used a combination of MBSR and MBCT, two used Acceptance and Commitment Therapy, one used ACT and a parent component, two used yoga, one used AAP, one using mindfulness, and one used meditation. Furthermore, even among the five studies in the meta-analysis that reported using MBSR, the amount of times participants participated in the interventions varied greatly, with one study reporting eight 120-minute sessions while another reported six 45-minute sessions total (Kallapiran et al., 2015). The lack of manualized mindfulness treatment and great variety of interventions which are reported as mindfulness interventions result in a difficulty in making generalized conclusions about mindfulness in general, given that "mindfulness intervention" varies so greatly from study to study.

Some theorists have also cautioned against mindfulness interventions for use with children, noting awareness of developmental considerations and abilities is essential when researching mindfulness interventions with children (Chadwick & Gelbar, 2016; Greenberg & Harris, 2012; Shute, 2019). Chadwick and Gelbar (2016) noted that implementing mindfulness interventions with children require developmental considerations such as attention to the limited attention span, cognitive capacities of young children, language abilities, and physical accessibility and endurance. Greenberg and Harris (2012) also reported that certain mindfulness practices, such as some forms of sitting meditation, may be inappropriate for young children due to their limited attention span, and recommended future research focus on researching developmentally appropriate mindfulness practices for children. Lastly, Shute (2019) noted that preschoolers may have difficulty with mindfulness interventions due to their inability to shift thinking from one task to another. Thus, when utilizing mindfulness interventions with children,

and particularly when using mindfulness interventions with young children, it is important to consider developmental appropriateness of interventions.

Researchers have examined the effectiveness of directive mindfulness-based interventions for children of all ages, including preschool-aged children (Flook et al., 2015; Kallapiran et al., 2015; Khoury et al., 2013; Lemberger-Truelove et al., 2018; Poehlmann-Tynana et al., 2016). Mindfulness-based interventions have resulted in increased regulation, attention, and empathy in children (Flook et al., 2010; Lemberger-Truelove et al., 2018). However, although research supports the use of mindfulness interventions with children, some theorists have suggested that mindfulness interventions may be developmentally inappropriate for children (Chadwick & Gelbar, 2016; Greenberg & Harris, 2012; Shute, 2019). Therefore, it may be advantageous to examine therapeutic modalities to increase dispositional mindfulness expressions in children that may obtain similar results to mindfulness-based interventions, while considering the developmental level of children.

Recently, theorists have detailed the similarities of components of mindfulness and social emotional-competencies (Feuerborn & Gueldner, 2019; Lawlor, 2016). Additionally, interventions have been developed for children that combine mindfulness-based interventions with social emotional learning (SEL), resulting in positive effects for the children who participated in the studies (Lemberger-Truelove et al., 2018; Palacios & Lemberger-Truelove, 2019). Such findings suggest that mindfulness-based interventions and social emotional learning may be similar and able to be combined into effective interventions for use with children. In the next section, social and emotional competencies are explored.

Social and Emotional Competencies

Social and emotional learning (SEL) is a focus in early childhood education

(Collaborative for Social and Emotional Learning, 2021). Early childhood social and emotional competencies relate to academic outcomes and adult well-being (Jones et al., 2015). Moreover, social and emotional competencies serve as protective factors for children throughout life. While social and emotional learning is a focus of early childhood education, the focus on SEL education differs depending on the educational setting (CASEL, 2021). In this section, social and emotional learning and competencies are defined, development of social and emotional competencies is explored, and benefits and limitations of social and emotional competence are described.

Definition of Social and Emotional Learning (SEL)

The Collaborative for Academic, Social, and Emotional Learning (CASEL, 2021) defined social and emotional learning (SEL) as "the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions". Furthermore, CASEL (2021) identified the following five core competencies of SEL: self-awareness, self-management, social-awareness, relationship skills, and responsible decision-making.

Self-awareness refers to the ability to effectively identify and acknowledge one's emotions, thoughts, and behaviors and includes the following components: ability to identify emotions, accurate self-perception, recognize strengths, self-confidence, and self-efficacy (CASEL, 2021). Self-management includes the ability to be aware of and effectively manage emotions, thoughts, and behaviors. Self-management includes the following components: impulse control, stress management, self-discipline, self-motivation, goal-setting, and organizational skills. Social-awareness is the ability to understand and have empathy for others

and includes the following components: perspective-taking, empathy, appreciating diversity, and respect for others. Relationship skills are the ability to create and sustain relationships with others and include communication, social engagement, relationship-building, and teamwork. Lastly, responsible decision-making is defined as the ability to make informed choices based on ethics, safety, and social norms. Responsible decision-making includes identifying problems, analyzing situations, solving problems, evaluating, reflecting, and ethical responsibility. The five core competencies of SEL are foci of early education and development and the presence of core competencies relate to positive outcomes in childhood and later in life (Arnold et al., 2012; Denham et al., 2014; Durak et al., 2012; Jones et al., 2015; Murano et al., 2020; Sklad et al., 2012; Taylor et al., 2017; Torres et al., 2015).

Social and emotional competencies are important for young children, and failure to meet developmental milestones may result in academic struggles. Specifically, children in preschool and kindergarten are at the optimal age to receive social and emotional interventions as the presence of social and emotional competence in kindergarten and preschool are related to later outcomes (Arnold et al., 2012; Denham et al., 2014; Jones et al., 2015; Torres et al., 2015). In the next section, the benefits of social and emotional competence are detailed.

Benefits of Social and Emotional Competence

SEL impacts preschool and K-12 students' functioning and academic achievement (Durak et al., 2012; Murano et al., 2020; Sklad et al., 2012; Taylor et al., 2017). Moreover, the relationship between social functioning and social skills in preschool children and academic development has been explored, suggesting that preschool children's social functioning is related to academic abilities throughout preschool and beyond (Arnold et al., 2012; Denham et al., 2014; Torres et al., 2015). Kindergarten prosocial competence is also related to adolescent and adult

outcomes (Jones et al., 2015). In this section, studies examining the relationship between social-emotional competencies and related outcomes in kindergarten, adolescence, and adulthood will be explained.

Benefits of Social-Emotional Competencies for K-12 Students

Durlak and colleagues (2011) conducted the first meta-analysis on social and emotional learning programs and included 213 school-based, universal social and emotional learning programs involving 270,034 kindergarten through high school students in their analysis to determine if SEL impacted the following: social and emotional skills, attitudes towards self and others, positive social behavior, conduct problems, emotional distress, and academic performance. Results from the meta-analysis indicated students who participated in SEL learning, when compared with control groups, demonstrated statistically significant improvements in social and emotional skills, attitudes towards self and others, and positive social behavior. Furthermore, students who participated in SEL learning demonstrated fewer conduct problems and had lower levels of emotional distress. Lastly, intervention group students also demonstrated an average increase of 11-percentile points in achievement postintervention on academic performance. 33 of the studies included in the meta-analysis also noted 6-month follow up effects; mean follow-up effect sizes remained significant for all outcomes including SEL skills, attitudes towards self and others, positive social behavior, conduct problems, emotional distress, and academic performance.

Sylad and colleagues (2012) also conducted a meta-analysis on the effects of school-based social, emotional, and behavior programs, reviewing 75 studies published between 1995 and 2008 in their analysis. Of the studies included in their analysis, approximately half used a randomized experimental design while the other half used a quasi-experimental design. Social,

emotional, and behavioral programs had a positive effect on the following: social-emotional skills, positive self-image, antisocial behavior, prosocial behavior, substance abuse, mental health disorders, and academic achievement. More specifically, a large effect size was found for social-emotional skill and a moderate effect for positive self-image, prosocial behavior, academic achievement, and antisocial behavior. One limitation of Sklad and colleagues' (2012) meta-analysis was manual availability was only explicitly mentioned in 26.7% of included studies, limiting the ability for researchers and clinicians alike to make generalizations from the results found in the analysis.

Lastly, Taylor and colleagues (2017) conducted a meta-analysis which reviewed 82 school-based social and emotional learning interventions with 97,406 kindergarten to high school students, focusing specifically on the follow-up effects of SEL interventions. More specifically, all 82 studies included in the analysis collected follow-up data from intervention and control groups at least 6 months postintervention; postintervention data collection varied from 56 to 195 weeks postintervention. Children who participated in SEL demonstrated significant improvement in SEL skills, attitudes, positive social behavior, academic performance, conduct problems, emotional distress, and drug use when compared to children in the control groups. Moreover, participants of SEL reported positive relationships with peers and family, positive school attendance, safe sexual behaviors, higher graduation rates, better college attendance, fewer arrests, and greater mental health adjustment. Results also revealed no significant difference in the impact of SEL with differing races, SES status, or country the intervention was implemented in, indicating SEL is beneficial for all children. Furthermore, of the 82 studies included in the analysis, the 31 interventions that included children ages 5-10 had the largest follow-up effect (ES=.27), compared to the effect size of the 37 interventions with participants ages 11-13

(ES=.12) and the effect size of the 11 interventions with participants ages 14-18 (ES=.18). Findings regarding the effectiveness of SEL with differing ages suggest SEL may be particularly effective when implemented with younger children.

The relationship between kindergarten social competence and future wellness in adulthood has also been studied (Jones et al., 2015). Jones and colleagues (2015) sought to examine the relationship between kindergarten social competence and adolescent and adult outcomes with a sample of 753 individuals. To assess kindergarten social competence, participants' teachers completed the Prosocial-Communication Skills subscale of the Social Competence Scale when the participants were in kindergarten. Then, participants were surveyed on a variety of outcomes 13 to 19 years following kindergarten. Odds ratios (ORs) or incidence rate ratios (IRRs) were provided for the relationship between kindergarten social competence and a variety of outcomes. Kindergarten prosocial skills were significantly and positively related to the following: whether participants graduated from high school on time (OR=1.54), completed a college degree (OR=2.00), obtained a stable employment in young adulthood (OR=1.66), and were employed full time in young adulthood (OR=1.46). Additionally, kindergarten prosocial skills were negatively related to the number of years of special education services (IRR=0.54), the number of years of repeated grades through high school (IRR=0.79), the likelihood of living in or being on a waitlist for public housing (OR=0.55), receiving public assistance (OR=0.63), involvement with police before adulthood (OR=0.65), and ever being in a detention facility (OR=0.61). Furthermore, kindergarten social competence was significantly related to being arrested (OR=0.60) and appearing in court (OR=0.63). Lastly, kindergarten prosocial skills significantly predicted the number of years participants were on medication for emotional or behavioral issues through high school (OR=0.54). Kindergarten social competence, therefore,

has relationships with adolescent and adult outcomes including education and employment outcomes, public assistance in young adulthood, justice system outcomes, substance abuse behavior, and certain mental health difficulties.

Social and emotional learning is beneficial to children for a myriad of reasons: enhancing social and emotional skills, strengthening attitudes towards self and others, increasing positive social behavior, decreasing conduct problems, decreasing antisocial behavior, decreasing substance abuse, aiding emotional distress, and enhancing academic performance (Durlak et al., 2011; Sklad et al., 2012). The benefits of SEL have been measured immediately following intervention (Durlak et al., 2011), and have also been found at differing follow-up periods postintervention (Taylor et al., 2017). Moreover, kindergarten social competence is related to adolescent and adult health outcomes including educational and employment outcomes, public assistance needed, justice system involvement, and substance and mental health struggles (Jones et al., 2015). While there remains a dearth of literature supporting the effectiveness of SEL with K-12 students, literature focused specifically on social-emotional competencies of preschool children is more limited (Arnold et al., 2012; Denham et al., 2014; Murano et al., 2020; Torres et al., 2015). In the next section, the benefits and effectiveness of SEL for preschool children will be explored.

Benefits of Social-Emotional Competencies for Preschool Children

Murano and colleagues (2020) conducted a meta-analysis focused on the effects of universal and targeted social emotional learning interventions specifically with preschool children. In the meta-analysis, 48 studies were included, with 33 studies examining the effectiveness of universal SEL interventions and 15 studies examining targeted SEL interventions. Targeted SEL interventions were utilized with at risk students determined to be in

need of additional support, primarily due to the prevalence of externalizing behaviors in the classroom. Children in the universal SEL interventions showed statistically significant improvements in overall social and emotional skills (g=.34) and decreases in problematic behaviors (g=.32) when compared with children in control groups. Similarly, children who participated in targeted SEL interventions showed statistically significant improvements in social and emotional skill development (g=.44) and reduction of problematic behaviors (g=.50) following intervention when compared with children who did not receive intervention services.

Preschool social functioning has also been associated with stronger academic development, suggesting the two constructs may be related (Arnold et al., 2012). Arnold and colleagues (2012) conducted a study examining the relationship between social functioning and academic development with 467 high-risk, low-SES preschool children. Teachers assessed participants' social functioning by completing the Social Skills Rating System, while academic development was assessed by examining preliteracy, language, and mathematics scores on various measures including the Woodcock-Johnson-III. Results indicated a relationship between social skills and emergent academic development, while controlling for attention and aggression problems.

Adding to the literature supporting the relationship between social-emotional competence and academic abilities, Denham and colleagues (2014) examined the relationship between social-emotional components and academic readiness in a group of 101 preschoolers. Preschool children's self-regulation was assessed via direct observation by research assistants, while academic readiness and school adjustment were assessed by teachers. Findings from the study revealed social-emotional competencies, including emotionally negative and aggressive behavior, emotionally regulated and prosocial behavior, and social problem solving were directly

related to kindergarten school adjustment and academic readiness. More specifically, emotionally negative and aggressive behavior in preschool children was negatively related to classroom adjustment in kindergarten, emotionally regulated and prosocial behavior in preschool was positively related to kindergarten classroom adjustment and academic success, and preschool social problem solving was related to academic readiness in kindergarten.

Lastly, preschool interpersonal relationships have been found to predict kindergarten achievement (Torres et al., 2015). Torres and colleagues (2015) study examined the degree in which preschool interpersonal relationships predicted kindergarten achievement and included 164 preschool Head Start students. Participants' teachers assessed the students' degree of interpersonal relationships by completing the Student-Teacher Relationship Scale and the Social Competence Scale; participants' emotional knowledge was assessed at the beginning and end of the preschool year with the following two measures: The Assessment of Children's Emotion Skills and the Emotion Recognition Questionnaire. Academic achievement was assessed in the fall of the preschool year and spring of kindergarten year with subscales from the Test of Preschool Early Literacy and subscales of the Woodcock-Johnson-III. Results from Torres and colleagues (2015) study demonstrated a direct association between the degree of preschoolers' interpersonal relationships and gains in emotional knowledge; additionally, the degree of emotional knowledge present at the end of the preschool year predicted academic achievement at the end of kindergarten. Therefore, preschool students' positive interpersonal relationships relate to gains in emotional knowledge, which in turn predict kindergarten achievement, suggesting that social-emotional competence is related to academic achievement.

SEL in preschool and K-12 programs is beneficial for a myriad of reasons (Durak et al., 2011; Murano et al., 2020; Sklad et al., 2012; Taylor et al., 2017). Preschoolers' social-emotional

abilities are related to kindergarten readiness, kindergarten achievement, and academic development (Arnold et al., 2012; Denham et al., 2014; Torres et al., 2015) Furthermore, social competence in kindergarten is related to a variety of adolescent and adult outcomes throughout life (Jones et al., 2015). Preschool and kindergarten social and emotional learning, therefore, is vital for both kindergarten readiness and long-term success, relating to academic outcomes and general well-being.

Preschoolers

Preschool is a unique time for children. For many, preschool is the first time that children attend a formalized school setting with a group of children who are similar ages as themselves. Similarly, preschool provides the first opportunity for many children to interact with individuals outside of their family unit, such as other children and teachers, for extended periods of time. Therefore, preschool is a unique time in which children engage with others and learn how to relate and respond to others from differing households.

Preschoolers include 3 to 5-year old children. Preschool is a significant time for social-emotional learning, brain development, and play (Balch, 2016; Dillman Taylor, 2016; Lee, 2016; Wood, 2017). There are differing types of preschool programs, including half-day programs, full-day programs, and Head Start programs. Furthermore, preschool is unique in comparison to other grades as it is not a national requirement to attend preschool (National Center for Education Statistics, 2017); therefore, the diversity and backgrounds of children attending preschools differs when compared to the backgrounds of children in grades K-12. Furthermore, preschoolers who attend Head Start programs are unique in that they face additional barriers to excel academically and interpersonally as a result of being economically disadvantaged. In this

section, data of preschoolers, normal development of preschoolers, characteristics of preschoolers, preschoolers in poverty, and Head Start programs will be explored.

Preschooler Data

Children who attend preschool differ in relation to their age, racial identity, and parental educational attainment, with certain groups reporting a larger percentage of children attending preschool when compared to others. Data collected from the National Center for Education Statistics (2019) includes the diversity and backgrounds of preschool-aged children attending preschool in 2017, which is the most recent year in which data is available. According to the National Center for Education Statistics (2019), 40 percent of three-year olds, 68 percent of four-year olds, and 86 percent of five-year olds attended preschool in 2017 (National Center for Education Statistics, 2019). These statistics indicate that a higher percentage of children attend preprimary programs as age increases. Percentages of three to five-year olds enrolled in preschools have remained relatively stable over the past 20 years, with similar percentages of children enrolled in 2017 when compared to those enrolled in 2000.

The percentages of three to five-year olds enrolled in preschools differs by race, with Black children being the highest percentage of children enrolled compared to other races (National Center for Education Statistics, 2019). 43% of Black children ages three to five are enrolled in preschool, 41% of White children, 41% of Mixed-race children, 35% of Asian children, 34% of American Indian/Alaska Native children, and 31% Hispanic young children. Percentages of three to five-year olds who attend preschool also differ based on parents' highest level of education attainment. Parents whose highest level of education was a bachelor's degree had the highest percentage of three to five-year old children enrolled in preschool (47%), with children of parents whose highest educational level was a graduate or professional degree close

to the same percentage at 46%. The percentage of preschool enrollment of children from parents with lesser degrees of educational degree attainment were much lower, with those who have Associate's degrees being 36%, those who attended some college but attained no degree at 34%, those who have high school diplomas at 33%, and those parents with less than high school degrees at 26% (National Center for Education Statistics, 2019). Preschool attendance has been found to be related to school readiness and sustained positive academic outcomes later in life, particularly for children who are disadvantaged (Karoly & Auger, 2016).

Head Start Programs

The National Center of Children in Poverty (2019) reported approximately 15 million children in the United States, which is 21 percent of all U.S. children, live in families with incomes below the federal poverty line. Head Start programs and The Head Start Performance Standards were originally developed in 1975 by the U.S. government to help disadvantaged groups in education by providing high-quality preschool programs (Office of Head Start, 2019). Head Start programs were created to provide low-income children developmentally appropriate services to aid their cognitive and social emotional development (Office of Head Start, 2019). In order to quality for Texas Head Start programs, children must be from a low-income family as determined by the Poverty Guidelines established by the government, be a child in foster care, be homeless, or be a child from a family receiving public assistance (U.S. Government, n.d.). Children who attend Head Start programs, therefore, are economically disadvantaged, which puts them at risk for negative consequences in their life as a result.

The Head Start Early Learning Outcomes Framework (HSELOF; Administration for Children & Families, 2015) was founded on research and identifies areas and specific tasks young children should know and be able to do in order to succeed in school. The HSELOF

includes five domains which are essential for children's academic and long-term success: approaches to learning, social and emotional development, language and literacy, cognition, and perceptual, motor, and physical development. In addition to descriptions of the five domains, the HSELOF also details developmental milestones for each domain that young children should meet at differing ages in order to be successful in school.

Impact of Poverty on Preschoolers

Children in poverty face challenges as a result of growing up economically disadvantaged. Although not originally identified as an ACE, poverty was subsequently included as a community-level ACE (Finkelhor et al., 2015), therefore impacting the mental and physical health of children. ACEs are stressors children may experience which negatively impact their lives in a multitude of ways. The original ACEs study was conducted by Felitti and colleagues (1998) and examined the relationship between ACEs and adult health outcomes. In the seminal ACEs study (Felitti et al., 1998), 13,494 adults total were mailed an ACEs questionnaire one week following their appointment at Kaiser Permanente's San Diego Health Appraisal Clinic. The questionnaire included 8 categories of ACEs patients may have experienced prior to the age of 18: emotional abuse, physical abuse, sexual abuse, mother treated violently, substance abuse in the household, mental illness in the household, parental separation or divorce, and incarcerated household member. 70.5% of individuals responded, totaling 9,508 individuals; Felitti and colleagues used the responses to compare the categories of ACEs included in the questionnaire to adult health status, reported risk behavior, and disease.

Felitti and colleagues (1998) found 52% of respondents experienced one or more ACEs, and 6.2% of respondents reported 4 or more ACEs. Furthermore, individuals who experienced one ACE had an increased probability of experiencing additional ACEs. Of the 10 risk factors

that contribute to the leading causes of morbidity and mortality in the US, the odds ratio for experiencing the diseases increased as the number of ACEs reported increased when compared to those who reported no ACEs. For example, individuals who experienced 4 or more ACEs had the following odds ratios: 2.2 for smoking, 1.6 for severe obesity, 1.3 for physical inactivity, 4.6 for depressed mood, 12.2 for suicide attempts, 7.4 for alcoholism, 4.7 for any drug abuse, 10.3 for drug abuse via injection, 3.2 for 50 or more intercourse partners, and 2.5 for reported sexually transmitted disease. The relationship between ACEs and disease conditions were similar in that those who experienced 4 or more ACEs had the following odds ratio of experiencing diseases: 2.2 for ischemic heart disease, 1.9 for any cancer, 2.4 for stroke, 3.9 for chronic bronchitis or emphysema, 1.6 for diabetes, 2.4 for hepatitis or jaundice, 1.6 for skeletal fractures, 2.2 for fair or poor self-rated health.

The most significant finding of the Felitti and colleagues (1998) study was a statistically significant dose-response relationship found for all 10 risk factors for leading causes of death included as well as for all disease conditions included with the exception of two. The dose-response relationship indicated that for every additional ACE an individual reported, respondents' odds of experiencing negative health outcomes was statistically significantly greater than for those who reported fewer ACEs. The only two health-related outcomes in which there was no statistically significant dose-response relationship was history of stroke and diabetes.

Other researchers have advocated for the inclusion of additional ACEs, arguing they also relate to health outcomes in varying degrees (Cronholm et al., 2015; Finkelhor et al., 2015; Merrick et al., 2017; Wade et al., 2016). Since the original ACEs study, researchers have advocated for the inclusion of additional community-based ACEs, which they argued impact

children and health outcomes equally as much if not more than the original ACEs (Cronholm et al., 2015; Finkelhor et al., 2015; Wade et al., 2016). Finkelhor and colleagues (2015) advocated for the inclusion of community-level ACEs of low socioeconomic status, peer victimization, peer isolation and rejection, and exposure to community violence (Finkelhor et al., 2015). Hundreds of researchers have conducted studies examining the effects of ACEs on children and adults alike since the seminal ACEs study (Felitti et al., 1998) and have included variations of the original and expanded ACEs.

Studies examining the relationship between original ACEs and expanded ACEs and negative outcomes have consistently found relationships between one reported ACE and negative physical health problems, mental health problems, and behavioral problems (Finkelhor et al., 2015; Petrucelli et al., 2019; Wade et al., 2016). Finkelhor and colleagues (2015) found low SES was significantly and independently related to negative health indicators, with youth reporting low SES having an incident rate ratio (IRR) of 1.93, indicating those children who reported low SES would have nearly twice the number of negative health indicators as now-low SES youth when controlling for other variables. Findings from Finkelhor and colleagues (2015) provide evidence that experiencing one ACE may relate to negative outcomes. Similarly, Petruccelli and colleagues (2019) found that individuals who reported a single ACE also reported increased risk of being an adult victim of violence (OR 1.78), illicit drug use (OR 1.57) and behavior problems (OR 1.45), among other negative outcomes. Wade and colleagues (2016) also found individuals who reported at least one expanded ACE had statistically significant increased risks of health risk behaviors and mental health problems when compared to those who reported no ACEs.

ACEs impact children in significant ways, impacting school functioning, social-

emotional competence, and contributing to problematic behaviors (Bethell et al., 2014; Blodgett & Lanigan, 2018; Choi et al., 2019; Clarkson Freeman et al., 2014; Hinojosa et al., 2019; Jimenez et al., 2016; Kerker et al., 2015; Ray et al., 2020). Furthermore, children with increased ACEs have a greater likelihood of experiencing physical, mental, and developmental conditions as well as poor health (Bright et al., 2016; Cprek et al., 2020; Elmore & Crouch, 2019; Flaherty et al., 2006; Kerker et al., 2015).

Children with ACEs may struggle with social-emotional competence (Kerker et al., 2015; Ray et al., 2020). Ray and colleagues (2020) conducted a study to explore the effects of ACEs on children's social-emotional assets. Results indicated the number of ACEs children reported was the primary predictor of social-emotional competencies measured by the SEARS-P (Merrell, 2011), indicating that increased ACEs predicted lower scores on social-emotional competencies (Ray et al., 2020). Kerker and colleagues (2015) also found similar results in their study, which examined young children ages 0-5. Results from Kerker et al. (2015) indicated that children ages 36-71 months ACEs scores were related with low scores on the Vineland Socialization subscale on the Vineland Adaptive Behavior Scale, indicating that children in this age range who reported more ACEs had more problematic social development when compared with children with fewer ACEs.

While SES is one of the community ACEs added after the seminal study conducted by Felitti and colleagues (1998), SES may also be a risk factor for ACEs (Cronholm et al., 2015; Crouch et al., 2019). Crouch and colleagues (2019) found lower household income was associated with increased odds of exposure to all original ACEs categories examined in their study. Additionally, Cronholm and colleagues (2015) found individuals who reported income below the poverty line were at higher risk for the expanded ACEs included in their study. These

studies indicate that individuals living below the poverty line may be more susceptible to both original and expanded ACEs.

Researchers have examined the relationship between age of reported ACEs and resulting impact (Grasso et al., 2016; Hambrick et al., 2019). Grasso and colleagues (2016) sought to examine the differing impact of ACEs on children while comparing three developmental periods: early childhood (0-5 years), middle childhood (6-12 years) and adolescence (13-18). Results indicated a dose-response relationship between the number of ACEs reported during early childhood and Post Traumatic Stress Disorder (PTSD) symptoms; therefore, the more ACEs children reported during 0-5 years of age, the greater amount of PTSD symptoms they experienced in adolescence, including re-experiencing of traumatic event, avoidance and numbing, and arousal symptoms. Additionally, the number of early childhood ACEs was also associated with scores on the Child Behavior Checklist (CBCL), with higher number of ACEs during the 0-5 age range relating to higher clinical scoring on the CBCL Total Problems and Internalizing Subscale.

Similarly, Hambrick and colleagues (2019) examined 4 developmental periods and the relationship between ACEs experienced during each developmental periods and relational health as well as child's current functioning. The four developmental periods included the following: perinatal (birth -2 months), infancy (2-12 months), early childhood (13 months-4 years), and childhood (4-11 years). Findings from the study indicated that adverse experiences were strong predictors of children's outcomes up until four years of age, with adverse experiences negatively impacting sleep, arousal, and concrete cognition as reported by those clinicians who worked with the children.

Results from these studies indicate experiencing ACEs early on in life, specifically prior

to the age of 5, may result in more severe outcomes compared with ACEs experienced after the age of 5 (Grasso et al., 2016; Hambrick et al., 2019). Early intervention is therefore imperative because early exposure to ACEs results in more severe implications in life (Grasso et al., 2016; Hambrick et al., 2019). Preschoolers, particularly those who are from disadvantaged backgrounds, are at an ideal age to receive intervention services in order to potentially mitigate the effects of ACEs.

Characteristics and Development of Preschoolers

Children have expansive brain development during the ages three, four, and five. Also, preschool children grow an average of 3-4 inches each year, with great physical development including vast development of their gross motor and fine motor skills (American Academy of Pediatrics, 2019; Balch, 2016; Dillman Taylor, 2016; Lee, 2016). Play is imperative for children ages three to five because it allows children to engage in fantasy play, learn about the world around them, and learn how to engage collaboratively with peers (Balch, 2016; Dillman Taylor, 2016; Lee, 2016). Descriptions of normal development of three-year old, four-year old, and five-year old children are included below.

Three-Year Old Children

Three-year old children have dramatic cognitive and emotional development (Lee, 2016). To facilitate neural development and integration, they need balanced structured and unstructured time (Lee, 2016). Children this age have an increased ability to communicate verbally and can communicate readily with adults (Lee, 2016); however, three-year old children need to use their body to convey thoughts and feelings due to their inability to describe their emotions through language (American Academy of Pediatrics, 2019). Additionally, three-year old children are beginning to be able to encode explicit memories due to their increased ability to communicate

verbally, which is significant because prior to this age all memories were encoded implicitly (Sprenger, 2008).

In play, three-year old children enjoy playing make-believe and begin to move towards being able to engage in play with others rather than engaging solely in parallel play (Lee, 2016). Three-year olds are able to begin engaging in play with others and forming friendships because they are beginning to become aware of others and others' feelings (American Academy of Pediatrics, 2019). Three-year olds are at an ideal age to attend preschool because it provides vast opportunities for social skill development, which comes at an opportune time for three-year olds as they have strong desires to play with other children (Lee, 2016). Three-year olds primarily use the right hemisphere of their brain because their left hemisphere and corpus collosum are not yet fully developed (Lee, 2016). Because of the right hemisphere functioning, three-year old children spend much of their play focused in fantasy and have trouble distinguishing between fantasy and reality (American Academy of Pediatrics, 2019).

Caregivers of three-year olds may have concerns regarding their child's ability to cooperatively play with others (Lee, 2016). For example, three-year old children may have difficulty sharing toys with peers, which may result in tantrums in the form of yelling, crying, and screaming, and even physical behaviors including punching, hitting, and biting (American Academy of Pediatrics, 2019). Physical outbursts may lead caregivers to become frustrated, overwhelmed, or confused. While caregivers can help three-year olds with regulation and cooperative play, as children have more experiences in collaborative play they will increase their ability to problem-solve without the help of caregivers.

Four-Year Old Children

Four-year old children are just beginning to be able to use the left-hemisphere of their

brain, allowing them to begin to understand cause and effect, use logic, and verbalize their feelings (Balch, 2016). At this age, children show improvements in their gross and fine motor skills, and therefore become more coordinated (Balch, 2016). In fact, four-year old children's coordination and fine motor skills are almost fully developed (American Academy of Pediatrics, 2019).

Four-year olds require stimulating environments that allow them the opportunity to be creative and flexible, and they have vast imaginations but limited attention spans (Balch, 2016; Wood, 2017). It is common for four-year olds to have difficulty expressing their emotions and self-regulating, and they may throw temper tantrums due to their inability to self-regulate (Balch, 2016). In play, four-year olds engage in fantasy-based play, love to engage with their peers, and may prefer to play with children of their same gender (Balch, 2016). Four-year old children are beginning to understand the difference between fantasy and reality (American Academy of Pediatrics, 2019). However, four-year old children should have developed relationships with peers, have a number of friends, and possibly even have a "best friend" (American Academy of Pediatrics, 2019). The developments in friendships and social relationships are the result of increased understanding of others and others' emotions (American Academy of Pediatrics, 2019).

> Just as three-year old children struggled with self-regulation and problem solving, four-year old children may continue to struggle with self-regulation and emotional regulation (Balch, 2016). Because of this, caregivers of four-year old children may be concerned about their child's "acting out" behaviors, including temper tantrums in the form of yelling, hitting, punching, screaming, and crying. Additionally, caregivers of boys may be concerned about the onset of their child's aggressive behaviors, leading boys to demonstrate increased hitting, punching, fighting, and kicking (American Academy of Pediatrics, 2019; Balch, 2016).

Attention span is slowly growing, and four-year old children should be able to sustain attention for approximately 10 minutes at a time (Petty, 2016). Inability to sustain attention for

extended periods of time may lead parents and teachers to become concerned, especially if the child attends a school program (Petty, 2016).

Five-Year Old Children

Five-year old children continue to have expansive neural development, as myelination facilitates connections between their hippocampus, amygdala, and left-and right-hemispheres of the brain (Dillman Taylor, 2016). Five-year olds are constantly on the go and need a lot of physical activity (Dillman Taylor, 2016; Wood, 2017). Five-year old children thrive in environments that have structure and an opportunity to explore so they can make their own discoveries (Wood, 2017). The average attention span of a five-year old is short, approximately 15-20 minutes, with sustained attention possible only when it is focused on something that they are interested in (Wood, 2017). Therefore, five-year olds need and benefit greatly from free play, where they can make their own discoveries and exert the physical activity needed to develop in an ideal way (Dillman Taylor, 2016).

Five-year old children are increasingly able to engage in collaborative play and prosocial behavior (Dillman Taylor, 2016), leading caregivers of children who have difficulty doing such to become increasingly concerned, both because of their child's difficulty engaging with others, but also because their child may begin to be left out of collaborative play as a result. Additionally, because five-year old children are able to begin to understand the emotions of others and be less egocentric (Dillman Taylor, 2016), difficulties in empathy development will also lead caregivers to be concerned. Therefore, development of empathy, collaborative play, and prosocial behavior are important for five-year old children, with failure to develop these skills potentially resulting in caregiver concern.

Kindergarten school readiness is also a consideration for five-year old children, as they

are recommended to meet certain developmental milestones in order to be adequately prepared to enter kindergarten (American Academy of Pediatrics, 2020). Social and emotional development is a large component of kindergarten school readiness. The American Academy of Pediatrics recommends children entering kindergarten be able to focus and pay attention, control impulses and emotions, take turns, cooperate and follow directions, make friends, empathize with others, control and communicate emotions, and limit aggressive behaviors (American Academy of Pediatrics, 2020).

In summary, three, four, and five-year old children are experiencing significant neural, physical, and social developments and are an ideal age to engage in play. Preschool-aged children are learning how to participate in social relationships with peers and adults and have an enhanced imagination, as well as a need for physical movement; therefore, in order for healthy development and ideal learning, play is essential for children at this age (Balch, 2016; Dillman Taylor, 2016; Lee, 2016; Wood, 2017). Child-centered play therapy, therefore, may be particularly beneficial for children at this age who are experiencing problematic concerns. In the next section the theoretical underpinning and effectiveness of child-centered play therapy will be discussed.

Child-Centered Play Therapy

Child-centered play therapy (CCPT) is a nondirective and developmentally appropriate way of working with children in therapy (Landreth, 2012; Ray, 2011). Because toys are children's words and play is their language, children are able to fully express themselves in CCPT within the context of the therapeutic relationship, thereby strengthening their self-concept, limiting their problematic behavior, and facilitating their movement toward achievement of their fullest potential as a result. CCPT is grounded in person-centered therapy; thus, a brief

discussion of person-centered theory is necessary in order to describe the theoretical foundations of CCPT. In this section, the theoretical foundations of CCPT, effectiveness of CCPT, and neurobiological rationale for CCPT will be included.

Theoretical Foundations of CCPT

The theoretical underpinnings of CCPT were initially developed by Carl Rogers, who developed person-centered theory (e.g., see Rogers, 1951; Rogers, 1957; Rogers, 1961; Rogers, 1989). Rogers' work focused on the development and utilization of person-centered therapy with adults. Two of Rogers' significant works included the 19 propositions (Rogers, 1951) and "The Necessary and Sufficient Conditions of Therapeutic Personality Change" (Rogers, 1957); both works will be discussed below.

Carl Rogers introduced the 19 propositions in 1951, which provided a framework for human development, included processes by which humans develop in adjusted and maladjusted ways, and discussed conditions necessary for change to occur (Rogers, 1951). As Rogers (1951) described, humans are born with their perception of experience equaling their reality, thereby being congruent and valuing their organismic valuing process. As humans grow and develop, their self-structure is formed, which includes conditions of worth, or ways in which they believe they need to act in order to be loved or worthy. Maladjustment, or incongruence, is developed from the inability to integrate experiences into the construct of self. Because individuals behave in ways consistent with their view of self, the only way to understand behavior is to understand the phenomenological world of the person. Furthermore, all individuals have an innate and constant striving for enhancement, also known as the self-actualizing tendency. Therefore, in a nonthreatening environment, individuals can begin to examine their experiences in a nonjudgmental way and integrate them into the self-structure, thereby moving towards increased

congruence. The six conditions necessary for this “nonthreatening environment” are detailed in Rogers (1957) writing.

One of the most significant components of person-centered therapy are the six necessary and sufficient conditions for constructive personality change, which were written by Rogers in 1957. The conditions include the following (Rogers, 1957):

1. Two persons must be in psychological contact.
2. The client is in a state of incongruence.
3. The therapist is genuineness/congruent in the relationship.
4. The therapist experiences unconditional positive regard for client.
5. The therapist has a level of empathic understanding for the client.
6. The client perceives, at least to a degree, the conditions in which the therapist conveys.

Rogers stated that the only one of the conditions that is dichotomous is the first condition, with the rest of the conditions (2-6) existing on a continuum. Therefore, the degree to which each of the conditions are met would relate to the level of constructive personality change within the client, with higher levels of each of the conditions corresponding with increased personality change in the client. Although Carl Rogers did not specifically discuss the use of person-centered therapy with children, his work serves as the foundation of CCPT, with all developments since his time following the 19 propositions, the six necessary and sufficient conditions for constructive personality change, and his other works closely.

Virginia Axline (1947), who was a student and colleague of Carl Rogers for a period of time, developed nondirective play therapy and created foundational tenets grounded in person-centered theory. In doing such, Axline developed eight basic principles essential to nondirective play therapy which include the following:

1. The therapist develops a warm, friendly relationship with the child.
2. The therapist accepts the child as they are.
3. The therapist establishes a feeling of permissiveness in the relationship so that the child is able to express themselves freely and fully.
4. The therapist recognizes and reflects the child's feelings so the child can gain insight from it.
5. The therapist respects the child and their ability to solve their problems. The child is responsible and able to make their own choices.
6. The therapist allows the child to direct and does not attempt to lead the session themselves.
7. The therapist does not attempt to hurry the process as it is gradual.
8. The therapist establishes only those limits that are necessary.

As can be observed from Axline's eight basic principles listed above, the components of nondirective play therapy are similar to those of Roger's necessary and sufficient conditions, with the foundational components of a genuine relationship with the client, acceptance/unconditional positive regard, and empathic understanding/deep understanding of client, being essential components in both.

Following Axline, Louise Guerney and Garry Landreth continued the development of child-centered play therapy and served as key figures in its development (Landreth, 1982; Landreth, 2012; VanFleet et al., 2010). Axline believed the therapeutic relationship is responsible for change and progress in play therapy, and stated, "The relationship that is created by the therapist and the child is the deciding factor in the success or failure of the therapy" (Axline, 1974, p. 74). While the skills and toys are important to the facilitation of CCPT, the quality and strength of the therapeutic relationship is imperative to the success of treatment.

Play is a child's universal language and toys are their words; therefore; the toys included in CCPT are carefully chosen, with each and every toy being purposeful (Landreth, 2012). The

carefully chosen toys allow children an ability to express a full range of emotions, with toy categories including the following: real-life toys, acting-out aggressive-release toys, and toys for reactive expression and emotional release. With these toys in the playroom, the therapist is able to establish a positive relationship with the child in which the child can express a wide range of feelings, explore real-life experiences, test limits, develop a positive self-image, develop self-understanding, and develop self-control (Landreth, 2012).

In addition to working to achieve the conditions outlined by Rogers (1957), CCPT therapists are also taught to convey "be with" attitudes, facilitate nonverbal communication, and verbalize facilitative responses. "Be with" attitudes, initially discussed by Landreth (2012), include four healing messages therapists attempt to convey in play therapy. "I am here" conveys to the child that the therapist is present with the child and engaged with the child. "I hear you" is the therapist's desire to enter into the child's world and listen to the child's verbal and nonverbal behaviors in the session. "I understand" is the therapist's attempt to convey a deep understanding to the child through verbal and nonverbal responses. "I care" is demonstrated when the three former healing messages are sufficiently conveyed and experienced by the child in the playroom.

Nonverbal communication is essential to the success of CCPT (Landreth, 2012; Ray, 2011). Nonverbal communication includes the therapist leaning forward in their chair with an open posture, appearing interested in the child client, and being relaxed and comfortable in the room with the child. Additionally, the therapist's tone and expressions should be congruent with the child's affect, meaning the therapist's responses should match the level of affect conveyed by the child. For example, if the child is somber in session, the therapist responses should be slightly slowed and conveyed in a lower pitch voice to match the child appropriately. Similarly, the therapist's tone and expression should be congruent with their verbal responses. For example,

a therapist would not be congruent if they exclaimed in a high pitch and upbeat tone, “you’re upset your mom didn’t drop you off today”.

Landreth highlighted skills which are utilized by the counselor in CCPT to enact the eight basic principles and to facilitate the therapist’s understanding and conveyance of CCPT (Landreth, 2012). The CCPT facilitative skills, also detailed in the Child-Centered Play Therapy Research Integrity Checklist (Ray et al., 2017), include tracking, reflecting content, reflecting feeling, facilitating decision making/returning responsibility, facilitating creativity/spontaneity, esteem building/encouraging, facilitating relationship, reflecting larger meaning, and limit setting. Definitions and examples of each of the facilitative skills are detailed below.

- *Tracking:* Tracking responses are verbal responses that state the child’s actions. Examples of tracking include “you picked another one”, “you put that one in there” and “you’re moving that back and forth”.

- *Reflecting content:* Reflecting content occurs when the therapist paraphrases the child’s verbal responses. For example, if a child stated, “I took a really hard test in class today, went to recess, made a painting, and then celebrated a birthday party”, a reflecting content response would be, “You were busy in class today.”.

- *Reflecting feeling:* Reflecting feeling responses are verbal responses to a child or object’s emotion. Examples included “You’re excited for playtime” and “You’re disappointed our special playtime is over”.

- *Facilitating decision making/returning responsibility:* Facilitating decision making and returning responsibility responses facilitate the child’s ability to make decisions and empower the child to be responsible. Examples of decision making and returning responsibility

responses include “In here, that’s something you can decide” and “That looks like something you can do”.

- *Facilitating creativity/spontaneity:* Facilitating creativity and spontaneity responses encourage the child to be free and creative in the playroom. An example of facilitating creativity and spontaneity responses is “That can be whatever you want it to be” (when a child asks what something in the playroom is).

- *Esteem building/encouraging:* Esteem building and encouraging responses foster the child’s self-concept and self-esteem and encourage the child’s intrinsic locus of evaluation. Examples of esteem building and encouraging responses include “You’re proud of yourself”, “you made it just the way you wanted it”, and “you did it”.

- *Facilitating relationship:* Facilitating relationship responses focus on the relationship between therapist and child and include “you” and “me” in them. Examples of relationship responses include “You wanted me to know about your family” (after child talks about family), “you wanted to show me that”, and “you’re mad at me”.

- *Reflecting larger meaning:* Reflecting larger meaning responses focus on the child’s theme or pattern of play and are advanced play therapy responses that should only be used after the therapeutic relationship is developed. Examples of reflecting larger meaning are “It’s important to you to win” (if a child always makes sure they win games) or “you always look for the money when you come to special playtime”.

- *Limit setting:* Limit setting responses follow Landreth’s (2012) ACT limit setting model, which includes three steps: acknowledge the child’s feeling, communicate the limit, and target alternative choices. An example of limit setting is “I know you’re mad at me, but I’m not for hitting. You can choose to hit the bop bag and pretend it’s me.”.

The ultimate goal of CCPT is to provide the core conditions in the relationship to allow the child to enact their self-actualizing tendency inherent in all human beings (Landreth, 2012; Rogers, 1951; Rogers, 1957; Rogers, 1961; Rogers, 1989). However, more specific goals of CCPT have been created in order to provide clarity regarding how CCPT benefits children. Landreth (2012) described the goals of CCPT, which are to focus on helping the child do the following:

1. Develop a more positive self-concept.
2. Assume greater self-responsibility.
3. Become more self-directing.
4. Become more self-accepting.
5. Become more self-reliant.
6. Engage in self-determined decision making.
7. Experience a feeling of control.
8. Become sensitive to the process of coping.
9. Develop an internal source of evaluation.
10. Become more trusting of himself/herself. (pp.84-85)

Ray (2011) expanded upon Landreth's (2012) foundational CCPT text and created a treatment manual for CCPT, for the purposes of facilitating quality CCPT research to be conducted. While child-centered play therapy research initially began with Axline's nondirective play therapy research, research in CCPT has expanded exponentially since the establishment of the UNT Center for Play Therapy by Garry Landreth in 1987.

Effectiveness of Child-Centered Play Therapy

The effectiveness of CCPT has been widely demonstrated in three meta-analyses (Bratton et al., 2005; Lin & Bratton, 2015; Ray et al., 2015). Bratton and colleagues (2005) conducted a

large meta-analysis examining the overall efficacy of play therapy interventions; Lin and Bratton (2015) conducted a meta-analysis on effectiveness of CCPT; and Ray and colleagues (2015) conducted a focused meta-analysis on the effectiveness of CCPT implemented in school settings. While all meta-analyses included found play therapy, CCPT, and CCPT implemented in schools to be effective, each meta-analysis contributed to the understanding of CCPT in varying ways. Additional randomized controlled trials and single-case designs have contributed to the literature supporting CCPT with preschool children (Bratton et al., 2013) and children who have ACEs (Haas, 2017; Kram, 2019; Tucker, 2020). CCPT has shown to be beneficial for children in a variety of ways, including decreasing inattentive symptoms (Kram, 2019) increasing self-regulation and empathy (Wilson & Ray, 2018), and strengthening social-emotional competencies (Blalock et al., 2019; Taylor & Ray, 2021).

Child-Centered Play Therapy Meta-Analyses

Bratton and colleagues (2005) conducted a meta-analysis to examine the overall efficacy of play therapy with children and included 93 controlled outcome studies published between the years 1953-2000. Results indicated an overall mean effect size of .80, a large effect size indicating that 80 percent of the improvements of those children in the play therapy groups could be attributed to the play therapy itself. Next, the meta-analysis compared the effectiveness of humanistic-nondirective play therapy studies to nonhumanistic-directive studies, with results indicating that while both groups showed positive outcomes, the humanistic-nondirective therapies showed significantly larger effect sizes than the nonhumanistic-directive counterparts. Lastly, Bratton and colleagues' (2005) meta-analysis of play therapy interventions sought to examine if there was a difference between children's presenting concerns and overall effectiveness of play therapy intervention, with findings suggesting that play therapy

interventions were beneficial regardless of the problematic behaviors or concerns the children presented with.

Following Bratton and colleagues (2005) work, Lin and Bratton (2015) conducted a meta-analysis to determine the efficacy of CCPT, specifically advocating for the importance of their study by stating that most individual studies have small sample sizes thus limiting the generalizability of their findings. Lin and Bratton's meta-analysis included 52 controlled outcome studies completed between 1995 and 2010 and conducted a hierarchical linear modeling analysis in order to give more weight to studies with larger sample sizes. The overall treatment effect size was .47, indicating a moderate treatment effect for children who received CCPT. Furthermore, results indicated treatment groups who received CCPT services demonstrated a statistically significant improvement when compared to control groups. Results from Lin and Bratton's (2005) meta-analysis support the efficacy of CCPT.

Two particularly noteworthy findings from Lin and Bratton's study include the effectiveness of CCPT across differing races and ages (Lin & Bratton, 2005). Specifically, the study compared those studies in which the mean age of participating children was 7 or younger with those studies reporting the mean age of 8 or older and found that there was a statistically significant difference between the effect sizes of two groups, with the average effect size of .53 for those in the 7 or younger age group compared with an effect size of .21 for those in the 8 and older age group. Additionally, the study compared the overall effectiveness of those studies in which 60% or more of the children participating reported being Caucasian with those studies in which 60% or more of the children participating reported being non-Caucasian and found a statistically significant difference between the groups. The effect size for the Caucasian group

was .33 and the effect size for the Non-Caucasian group was .76. Findings indicate that CCPT may be particularly beneficial for those children who are 7 or younger and children of color.

Ray and colleagues (2015) conducted a more specific meta-analysis examining the impact of CCPT conducted solely in elementary schools. The meta-analysis included 23 studies, all of which included a comparison group in which participants were assigned either by random assignment or other quasi-experimental methods. The researchers conducted multiple analyses in order to determine overall effect sizes of specific outcomes including Internalizing outcomes, Externalizing outcomes, total problem behaviors, self-efficacy, and academic outcomes. Results indicated a mean effect for Internalizing outcomes was .21, Externalizing outcomes was .34, Total problem behaviors .34, self-efficacy was .29, academic outcomes was .36, all indicating that there was a statistically significant difference between children and their outcomes in the CCPT intervention group when compared to the children in the control groups. Lastly, Ray and colleagues (2015) reported that statistically significant results were demonstrated in a mean of 12 sessions, with sessions typically lasting for a duration of 30-minutes, indicating that CCPT can in fact be used as a short-term intervention in the schools with positive results.

All three meta-analyses found CCPT, administered in school settings and overall, an effective approach to working with children (Bratton et al., 2005; Lin & Bratton, 2005; Ray et al., 2015). Furthermore, additional takeaways include CCPT being particularly effective for children who are from marginalized populations and those under the age of seven, the effectiveness of CCPT being demonstrated in an average of 12 sessions (Lin & Bratton, 2005; Ray et al., 2015), and the ability of CCPT to be conducted in schools with resulting positive outcomes (Ray et al., 2015). In addition to meta-analyses, other studies have contributed to the evidence-base for CCPT as an effective intervention for use with at-risk preschool children and

for strengthening children's social emotional competencies (Blalock et al., 2019; Bratton et al., 2013; Taylor & Ray, 2016).

Child-Centered Play Therapy with Preschool Children and Children with ACEs

Bratton and colleagues (2013) conducted a pilot study with 54 preschool children in which participants were randomly assigned to CCPT treatment group or an active control reading mentoring group to determine if CCPT participants had changes in aggression, attention, and disruptive behaviors as reported by teachers. Results indicated children in the CCPT treatment group had statistically significant decreases in Externalizing syndrome scores, Aggressive Behavior scores, and Attention Behavior scores when compared to the reading mentoring group. Additionally, the effect sizes were .34 for Externalizing scores, .27 for Aggressive behavior, and .17 for Attention scores, indicating large treatment effects. This study serves as one of the first studies to examine effectiveness of CCPT in a randomized controlled trial with an at-risk preschool population, and therefore serves as a foundation for the current study.

Tucker (2020) explored how CCPT impacted the academic achievement of children in poverty by conducting a randomized controlled trial. In the study, academic achievement was measured by scores on the Young Children's Achievement Test (YCAT), which were measured at preintervention and postintervention for all participants. 60 children were randomly assigned to the intervention or waitlist control group; intervention group participants received 16 30-minute twice weekly CCPT sessions. Results from Tucker (2020) indicated that children in the treatment group demonstrated statistically significant increases in academic achievement from pretest to postttest, as measured by the YCAT, when compared with children in the waitlist control group. Results from Tucker (2020) support the use of CCPT with disadvantaged children.

Research has also supported the use of CCPT with children with ACEs (Haas, 2017;

Kram, 2019). Haas (2017) conducted a pilot study using a single-case design to determine the effectiveness of CCPT with children who had four or more ACEs. Two children participated in the study, and both reported eight ACEs total. After completing 24 45-minute bi-weekly CCPT sessions, both children reported significant decreases in all subscales of the Strengths and Difficulties Questionnaire as well as on the Trauma Symptoms Checklist for Young Children, indicating CCPT may be an effective intervention for use with children who have ACEs.

Kram (2019) also examined the effectiveness of CCPT with children with ACEs. Specifically, Kram (2019) conducted a randomized controlled trial in which she sought to determine whether CCPT would have an effect on the inattention and hyperactivity symptoms present in children with two or more ACEs. Results indicated that children in the treatment group demonstrated a statistically significant decrease in inattentive and hyperactive symptoms as reported by teachers on the ADDES-4 School and as observed by raters on the Attention Deficit/Hyperactivity DSM-oriented subscale. Moreover, results indicated that those children who were in the control group and did not receive CCPT services reported an increase in inattentive and hyperactive symptoms at the post-testing assessment. Results from Kram (2019) study further supports the use of CCPT as an effective intervention for children with ACEs.

CCPT for Social-Emotional Competencies, Empathy, and Self-Regulation

Two studies have determined that CCPT strengthened children's social-emotional competencies (Blalock et al., 2019; Taylor & Ray, 2021). Blalock and colleagues (2019) examined the effectiveness of child-centered individual play therapy (CCIPT) and child-centered group play therapy (CCGPT) on children's social-emotional assets. A randomized controlled trial was conducted in which 56 children were randomly assigned to the CCIPT group, CCGPT group, or waitlist control group. Researchers found parents of children who participated in CCPT

reported statistically significant improvements in their children's overall social emotional competencies, as measured by the Social Emotional Assets and Resilience Scale- Parent, when compared to the waitlist control group, indicating parents observed significant social and emotional changes in their children as a result of participation in CCPT.

Taylor and Ray (in press) conducted a randomized controlled trial to examine the effects of CCPT on the social emotional competencies of African American children as measured by the Social Emotional Assets and Resilience Scale-Parent and Social Emotional Assets and Resilience Scale- Teacher. Taylor and Ray (in press) randomly assigned 38 participants ages 5 to 10-years old to the CCPT intervention group or the waitlist control group. Results from Taylor and Ray (in press) revealed parents of children who participated in the CCPT intervention group showed statistically significant improvements with medium to large effect size in overall social-emotional competencies when compared to the waitlist control group while teachers reported improvements with medium effect size. Results from the study indicated that CCPT may be a culturally responsive intervention to strengthen the social-emotional competencies of African American children.

Lastly, CCPT has also been found to strengthen self-regulation and empathy in children (Wilson & Ray, 2017). Wilson and Ray (2017) conducted a randomized controlled trial to determine whether CCPT has an effect on children's aggression, self-regulation, and empathy. 71 elementary school children were randomly assigned to either the CCPT intervention group or the waitlist control group. The following two measures were used to assess aggression, self-regulation, and empathy pre-intervention and post-intervention via parent and teacher report: Children's Aggression Scale (CAS) and Social Emotional Assets and Resilience Scales (SEARS). Results indicated CCPT had an impact on parents' reports of child aggression, self-

regulation, and empathy when compared to the control group. Therefore, results from Wilson and Ray (2017) found CCPT positively impacted children's self-regulation and empathy as measured on the SEARS-P.

As described in this section, the evidence-base for CCPT is substantial, with three-meta-analyses in addition to specific studies supporting the effectiveness of CCPT with children in general, as well specifically for at-risk children (Bratton et al., 2005; Bratton et al., 2013; Lin & Bratton, 2015; Ray et al., 2015; Tucker, 2020). Furthermore, the effectiveness of CCPT has been demonstrated to aid children struggling with inattention (Kram, 2019), strengthen self-regulation and empathy (Wilson & Ray, 2018), and increase social-emotional competencies in children (Blalock et al., 2019; Taylor& Ray, in press). The rationale for the utilization of CCPT and how it effectively facilitates change can be described through the description of the theoretical tenets of CCPT described above, as well as through the neurobiological rationale. The neurobiological rationale for CCPT will be described below, with a specific focus on how CCPT facilitates neural integration.

Neurobiological Rationale for CCPT

CCPT may contribute to changes in children's behavior, self-concept, and also neurobiological processes. Research supports the notion that children develop self-regulation through play, which includes strategies for emotional regulation and coping mechanisms used to maintain regulation in stressful situations (Kestly, 2014). Theorists and neuroscientists have detailed specific counseling responses and how they affect neurodevelopment as well as how a therapeutic relationship facilitates growth and healing (Badenoch, 2008; Kestly, 2014; Hong & Mason, 2016; Schore, 2014; Siegel, 2007; Sprenger, 2008; Stewart et al., 2016; Wheeler & Taylor, 2016). While these theorists have compiled neurobiological research to explain how

neurobiological changes may result from participation in CCPT, no current research exists to support the theoretical claims. In this section, the specific components of CCPT and how they may theoretically contribute to neural development and healing will be discussed.

Specifically, CCPT focuses on the therapeutic relationship between the child and counselor, which is important because such a relationship engages the right hemisphere of the brain, which is where implicit memories and emotional regulation are stored (Schore, 2014). Furthermore, CCPT allows children to process experiences they have encountered throughout the lifespan, including experiences stored within their implicit and explicit memories. Because implicit memories are created outside of conscious awareness, they affect the person, but are unable to be verbally communicated or processed (Hong & Mason, 2016; Sprenger, 2008). Implicit memories are the only types of memories individuals are able to encode for the first 12-18 months of life (Badenoch, 2008). When children feel safe and understood in a therapeutic relationship such as the relationship facilitated in CCPT, it is theorized that they are able to bring their implicit memories to the explicit world (Wheeler & Taylor, 2016), and the child's behavior can change as a result (Kestly, 2014).

Specific neural processes are theoretically activated within CCPT. When the child enters into the play therapy relationship, their seeking circuit is activated, which is located in the limbic region of the brain. Badenoch (2008) theorized that when the seeking system is activated, dopamine is released in the child's frontal lobe, which increases the child's focus, happiness, and sense of purpose. In CCPT, the focus is on the child, and the child is the one who leads and directs the sessions. This increases the child's sense of power and value; when a child feels powerful and valued, the brain may respond by releasing opioids. Opioids are neurochemicals that help balance stress chemicals within the brain, and help the child increase their engagement

and regulation (Badenoch, 2008). CCPT, therefore, may result in changes in the neurochemical makeup of children's brains, contributing to the overall benefits of CCPT.

Child-centered play therapists focus on specific skills in session which may contribute to neural development. Reflecting children's feelings likely increases children's bilateral integration. Bilateral integration is the link between the left hemisphere and right hemisphere of the brain and connects the logical side of the brain to the emotional side. Strengthened bilateral integration increases emotional regulation and the ability to effectively communicate feelings (Siegel, 2007). Additionally, when the play therapist reflects feeling and tracks the child's play, the child's brain may respond by producing more oxytocin (Stewart et al., 2016). Oxytocin is a hormone that increases emotional well-being, trust, reduced fear, and increased emotional regulation (Stewart et al., 2016). Reduction of fear in the playroom is important because children who have experienced trauma or loss may be able to more effectively play and process these experiences within the play therapy relationship (Stewart et al., 2016).

CCPT may also enhance top down and bottom up processes in children's brains (Stewart et al., 2016). Top down processes are enhanced through tracking, facilitating decision-making, facilitating creativity responses, and reflections of meaning, and result in children increasing their awareness to strengths they possess. Bottom up processing increases a child's sense of self-awareness and is facilitated through tracking and reflecting feeling responses (Stewart et al., 2016). CCPT can result in the child's brain developing new neuron pathways in the brain, specifically between the limbic system and the middle prefrontal area, which give the child the ability to self-regulate (Badenoch, 2008). Additionally, CCPT may aid children in processing and altering implicit memories that result from trauma (Schore, 2014), decreasing the child's state of hyperarousal, and therefore increasing the child's focus, impulse control, and aid the

child in developing more adaptive coping responses (Stewart et al., 2016). While no studies have examined the neurobiological benefits of participation in CCPT, previous research has supported the contribution of therapeutic responses and focus on relationship facilitating neurobiological and neurochemical changes in the brain.

CCPT with Mindfulness, Social Emotional Competence, and Preschoolers

Mindfulness interventions have shown promise in enhancing emotional regulation, attention, and overall self-regulation in adults (Hozel et al., 2011). However, the empirical support for the use of mindfulness interventions with children has been more limited when compared to the research focusing on mindfulness with adults (Borquist-Conlon et al., 2019; Flook et al., 2010; Kallapiran et al., 2015; Lemberger-Truelove et al., 2018). Given the possible adverse effects of utilizing mindfulness interventions with individuals who have experienced trauma (Chadwick & Gelbar, 2016; Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018), combined with the developmental considerations necessary when implementing mindfulness interventions with children (Greenberg & Harris, 2012; Shute, 2019), finding alternative ways to strengthen mindfulness in young children may be beneficial.

Recent literature has suggested that mindfulness components may be related to social-emotional competencies (Feuerborn & Gueldner, 2019; Lawlor, 2016; Lemberger-Truelove et al., 2017; Palacios & Lemberger-Truelove, 2019). Specifically, theorists have argued that mindfulness constructs align with the social-emotional competencies defined by the Collaborative for Academic- Social, and Emotional Learning (CASEL, 2021; Feuerborn & Gueldner, 2019; Lawlor, 2016). Furthermore, researchers have developed combined social and emotional learning and mindfulness-based interventions for children and have found them to be effective (Lemberger- Truelove et al., 2017; Palacios & Lemberger-Truelove, 2019). Findings

from the recent literature suggest that certain interventions may strengthen mindfulness components and social emotional competencies simultaneously.

Preschoolers are at a unique stage of development in which social-emotional learning is of precedence. Social and emotional learning relates to a myriad of positive outcomes, including academic outcomes as well as lifelong outcomes (Arnold et al., 2012; Denham et al., 2014; Durlak et al., 2011; Jones et al., 2015; Murano et al., 2020; Sklad et al., 2012; Taylor et al., 2017; Torres et al., 2015). Children from disadvantaged backgrounds may struggle to develop social and emotional competencies (Kerker et al., 2015; Ray et al., 2020), resulting in negative consequences later in life (Jones et al., 2015); therefore, children from disadvantaged backgrounds need enhanced support in order to increase their strengths.

CCPT may facilitate the development of mindful expressions in young children with ACEs because the goals of CCPT align with components of mindfulness, CCPT is a developmentally appropriate modality for use with children (Landreth, 2012; Ray, 2011), and has a strong research base supporting its use. Figure A.1 provides a theoretical rationale for the use of CCPT to promote mindfulness and social emotional competencies for children who have experienced ACEs. One of the central aspects of mindfulness is adopting a nonjudgmental stance towards one's own thoughts and feelings, accepting all that come into present-moment awareness and not evaluating those thoughts and feelings which come into awareness (Kabat-Zinn, 2003; Bishop et al., 2004). Similarly, one of the goals of CCPT is for children to become more self-accepting, accepting all aspects of self, also known as developing unconditional positive self-regard (Landreth, 2012; Ray, 2011). In CCPT, it is believed that unless one accepts all aspects of self, one will not change. Rogers stated, "the curious paradox is that when I accept myself just as I am, then I change." (Rogers, 1961, p. 17) Thus, the goal of nonjudgment towards

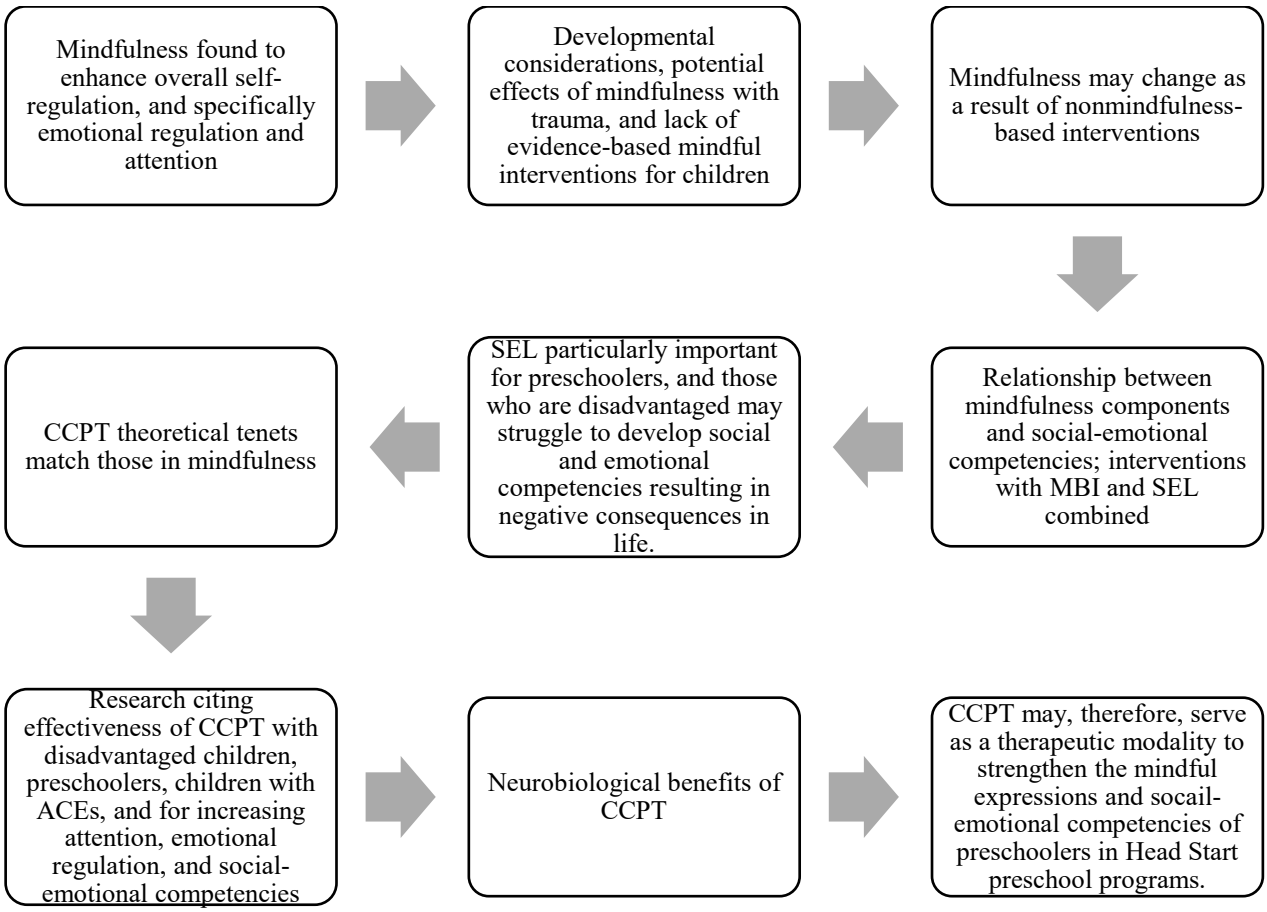
thoughts and beliefs in mindfulness is similar to the goal of becoming more self-accepting and congruent in CCPT. Self-acceptance, or nonjudgment, results in the child increasing their capacity to trust their organismic valuing process, allowing them to move toward increased congruence.

Furthermore, another significant component of mindfulness which aligns with goals of CCPT is openness, defined as an ability to allow all experiences into awareness (Bishop et al., 2004; Kabat-Zinn, 2003). Openness is similar to the goal of CCPT to facilitate the ability for children to become more self-trusting (Landreth, 2012), as the environment in CCPT allows children the safety, security, and predictability to explore self and process experiences in which they may have previously avoided or ignored. The permissiveness allowed in CCPT along with the safety and security facilitates the child's ability to discover and process what they need to process, including previous trauma.

Allowing children the ability to safely process experiences within the therapeutic relationship may allow the child to experience a feeling of control, which aligns with another common outcome of mindfulness, enhanced attention (Bishop et al., 2004; Kabat-Zinn, 2003). Children who have experienced trauma may have symptoms of inattention and hyperactivity, and CCPT has shown to decrease inattention and hyperactivity symptoms in children with ACEs (Kram, 2019), suggesting that CCPT allows children the ability to process traumatic experiences in a controlled, contained, environment with great success. Thus, CCPT aligns with the goals and outcomes of mindfulness by increasing attention.

Figure A.1

Flow Chart Detailing CCPT with Mindfulness, Social-Emotional Competence, and Preschooler



Researchers and theorists have cautioned against the use of typical mindfulness interventions with children (Greenberg & Harris, 2012; Shute, 2019) and with individuals who have experienced trauma (Chadwick & Gelbar, 2016; Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018). Children who have experienced ACEs may suffer from adverse experiences including “amnesia, hypermnesia, dissociation, depersonalization and derealization, flashbacks and nightmare of specific events” (van der Kolk, 2005, p.7). Therefore, they may be unfit to participate in directive mindfulness interventions due to risk of re-traumatization, which has been reported as a possible adverse effect of mindfulness interventions (van der Kolk, 2005). Because the prevalence of ACEs is so high in the United States, with estimates suggesting that 48% of US

children have experienced at least 1 ACE, an estimated 34,825,978 children nationwide (Bethell et al., 2014), providing disadvantaged young children with an intervention equipped to allow them to safely process traumatic experiences in a developmentally appropriate way may be beneficial.

The limitations related to the use of directive mindfulness interventions with children may be mitigated with CCPT as an alternative intervention to strengthen mindfulness in children. Specifically, CCPT is a developmentally appropriate approach for children because the main process in which children are able to express themselves in CCPT is through play (Ray, 2011; Landreth, 2012). Furthermore, CCPT allows children the ability to choose how they would like to use the time in the playroom and does not provide a directive intervention in which the child is expected to direct sustained attention towards for a period of time. Rather, by allowing the child to lead the session, the child able to choose how they would like to spend the time in the playroom. Because of this, CCPT allows children the ability to decide how and when they would like to process significant experiences in their lives within the safety of the therapeutic relationship. This is in contrast to directive mindfulness interventions, which may direct children to address their traumas in ways or at times in which they are not ready, potentially leading to adverse effects such as re-traumatization (Chadwick & Gelbar, 2016; Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018).

To date, no studies have examined the impact of CCPT on the mindful expressions of disadvantaged preschoolers. However, previous research has found ACEs to be associated with inattention and difficulties with emotional regulation (D'Andrea et al., 2012), suggesting that children who have experienced traumas may benefit from enhancements in mindfulness; moreover, CCPT has been shown to be effective in reducing inattentive symptoms (Kram, 2019)

and facilitating the development of self-regulation (Wilson & Ray, 2018), which are the two factors most readily found to be empirically-supported outcomes of mindfulness interventions (Hozel et al., 2011). Additionally, two studies have specifically examined the effectiveness of CCPT with children with ACEs (Haas, 2017; Kram, 2019), while two studies have found CCPT to strengthen children's social-emotional competencies (Blalock et al., 2019; Taylor & Ray, 2021). CCPT may therefore be a possible intervention to strengthen mindful expressions and social-emotional competencies in disadvantaged preschoolers due to the research support for CCPT, the similarities between the goals of CCPT and mindfulness outcomes, the relationship between mindfulness constructs and social-emotional competencies, and because of the developmental appropriateness of CCPT for use with young children.

Conclusion

While Western-based mindfulness interventions have increased in popularity, so has the research supporting their use with adults (Chiesa & Serretti, 2011; Galante et al., 2012; Grossman et al., 2004; Hozel et al., 2011; Khoury et al., 2015; Piet & Hougaard, 2011). However, cautions regarding lack of consensus operational definitions, generalizations lacking empirical support for use with children, and cautions regarding use of mindfulness with children (Greenberg & Harris, 2012; Shute, 2019) and those who have experienced trauma (Chadwick & Gelbar, 2016; Lindahl et al., 2017; Treleaven, 2018; Van Dam et al., 2018) suggest finding alternative interventions that strengthen mindfulness in children may be advantageous. Given the recent literature supporting the similarities between mindfulness interventions and social-emotional learning (Feuerborn & Gueldner, 2019; Lawlor, 2016) as well as the similar constructs present in mindful expressions and social-emotional competencies (Lemberger-Truelove, 2018; Palacios & Lemberger-Truelove, 2019), developmentally appropriate interventions empirically

supported to strengthen social-emotional competencies in young children may also serve to strengthen mindful expressions.

Preschoolers, specifically those who are from disadvantaged backgrounds, may particularly benefit from a developmentally appropriate, nondirective, and play-focused intervention due to their stage of development (Balch, 2016; Dillman Taylor, 2016; Lee, 2016; Sprenger, 2008; Wood, 2017). CCPT may therefore be an effective intervention to facilitate mindful expressions and social-emotional competencies for preschoolers because it is a developmentally appropriate modality for use with young children (Landreth, 2012; Ray, 2011), allows children the ability to process trauma at their own pace, and has research to support its use with preschoolers (Bratton et al., 2006), children with ACEs (Haas, 2017; Kram, 2019), disadvantaged children (Tucker, 2020), and children who struggle with social-emotional competencies (Blalock et al., 2019; Taylor & Ray, 2021).

APPENDIX B

METHODOLOGY

The purpose of this study was to examine the impact of Child-Centered Play Therapy (CCPT) on the social and emotional functioning and the mindful expressions of preschool children in Head Start preschool programs. In order to examine this impact, I conducted a randomized controlled trial to compare the treatment group with a waitlist control group. The methodology detailed below includes the following: research question, operational definitions, participants, instruments, procedures, data analysis, and potential limitations.

Research Questions

1) What is the impact of child-centered play therapy on mindful expressions of preschoolers in Head Start preschool programs?
2) What is the impact of child-centered play therapy on the social and emotional functioning of preschoolers in Head Start preschool programs?

Operational Definitions

Mindful Expressions

Mindful expressions are observable mindfulness characteristics that can be observed in individuals in daily experiences and behaviors and not solely during mindful practices (Malinowski, 2008). For the purposes of this study, the mindful expressions being observed are the components of the Child Observation of Mindfulness Measure (C-OMM) assessment included in the study.

Social and Emotional Functioning

Social and emotional functioning is the degree to which children demonstrate social and emotional skills, including the following skills: self-regulation, emotion knowledge, empathy, and responsibility (Ravitch, 2013). For the purposes of this study, social and emotional

functioning includes the components of The Social-Emotional Assets and Resiliency Scale for Preschool (SEARS-Pre) assessment that are included in this study.

Head Start

Head start programs were developed by the U.S. government to provide low-income children developmentally appropriate preschool services to aid their cognitive and emotional development (Office of Head Start, 2019). For the purposes of this study and according to the state of Texas, in order to qualify for Texas Head Start programs, children must be from a low-income family as determined by the Poverty Guidelines established by the government, be a child in foster care, be homeless, or be a child from a family receiving public assistance (U.S. Government, n.d.).

Child-Centered Play Therapy (CCPT)

CCPT is a developmentally appropriate therapeutic modality to utilize with children grounded in the theoretical foundations of person-centered theory. In this study, CCPT is defined by the manualized CCPT treatment protocol detailed by Ray (2011).

Participants

Participants were recruited from two Head Start preschools located in southwest United States. According to state law (Texas Education Agency, 2020) children must meet one of the following criteria in order to attend Head Start schools:

1. Unable to speak and comprehend the English language
2. Are educationally disadvantaged
3. Are homeless
4. Are the child of an active duty member of the armed forces of the United States

5. Are the child of a member of the armed forces who was injured or killed while on active duty
6. Are or ever have been in the conservatorship of the Department of Family and Protective Services (foster care)
7. Or are the child of a person who is a peace officer, firefighter, or emergency first responder seriously injured or killed in the line of duty (Texas Education Agency, 2020)

The demographics for the two schools from which participants were recruited for this study are provided in Table B.1.

Table B.1

Demographics of Head Start Programs

Enrollment Percentages		School 1	School 2
Race/Ethnicity	African American	23.1%	15.7%
	Hispanic	56.9%	55.3%
	White	17.1%	24.0%
	American Indian	0.3%	0.0%
	Asian	2.3%	4.3%
	Pacific Islander	0.0%	0.0%
	Two or more Races	0.3%	0.7%
Enrollment by Student Group	Economically Disadvantaged	100.0%	99.7%
	Special Education	18.7%	12.7%
	English Learners	40.5%	36.7%

In order to meet the minimum sample size recommendation made by de Winter (2013) to conduct an independent samples t-test, at least 4 participants were sought for this study. The final sample size for this study was 23 participants total, exceeding the recommendation of 4 participants total. The sample consisted of 9 males and 2 females between the ages of three to five years old (M= 3.72, SD=0.467)) in the experimental group, and 9 males and 3 females between the ages of three to five years old (M= 3.75, SD=0.622) in the control group. Regarding

ethnicity, in the experimental group 9% reported being African American (n=1), 36% Caucasian (n=4), 45% Latino (n=5), and 9% Multiracial (n=1). In the control group, no participants reported being African American (n=0), 8% Caucasian (n=1), 75% Latino(n=9), and 17% Multiracial (n=2). The demographics for the participants who participated in this study are provided in Table B.2.

Table B.2

Demographic Descriptive Statistics for Participants

		CCPT Group (n=11)	Control Group (n=12)
Age	Three	3	4
	Four	8	7
	Five	0	1
Sex	Male	9	9
	Female	2	3
Ethnicity	African American	1	0
	Caucasian	4	1
	Latino	5	9
	Multiracial	1	2

Participants met the following set of criteria in order to qualify for this study: children (a) were enrolled in a Head Start preschool program; (b) referred to the study by a teacher or parent due to behavioral or academic concerns; (c) qualified for free or reduced lunch; and (d) had consent from parent/guardian to participate in the study. Participants also reported their number of ACEs according to participants' caregivers responses on the Adverse Childhood Questionnaire- Expanded. The mean number of participants' expanded ACEs was 1.73 (*SD*=1.73).

Instruments

This study utilized two assessments and one questionnaire to collect data from participants. The two assessments utilized were the Child Observation of Mindfulness Measure (C-OMM) and The Social-Emotional Assets and Resiliency Scale for Preschoolers (SEARS-Pre). Additionally, the Adverse Childhood Questionnaire- Expanded was administered to participants' caregivers. The details of each assessment and questionnaire are included below.

Child Observation of Mindfulness Measure (C-OMM)

The Child Observation of Mindfulness Measure (C-OMM; Lemberger-Truelove & Zieher, 2019; Lemberger-Truelove et al., 2019) was utilized to conduct pre-and post- testing in the preschool classrooms for all children who participated in the study. The C-OMM was developed to measure the observed levels of mindful expressions of preschool-aged children, as all previously developed child-focused mindfulness assessments were developed exclusively for children ages 8-years and older and focused on child-self report rather than direct observation (Lemberger-Truelove et al., 2019). Lemberger-Truelove and colleagues (2019) noted that prior mindfulness instruments developed for use with children may be inaccurate as they rely on child self-report and therefore self-awareness that the child may not possess, potentially leading to inaccurate and inconsistent results. Additionally, Lemberger-Truelove et al. (2019) suggested that the systematic observation of children's behaviors may serve as a more reliable method for mindfulness assessments; hence, the C-OMM was developed to observe children's outward expression of mindfulness by assessing their mindful behaviors. For the purposes of this study, the C-OMM will assess the mindful expressions within dispositional mindfulness of the preschool children who participated in the study.

The C-OMM is intended to observe the mindful expressions of preschool children in the

classroom, and focuses on the following factors: noticing behaviors, sustained attention, quality of attention, openness towards others, judgment of others, curiosity, openness from others, and judgment from others. All items on the C-OMM are scored on a scale of 1-7, with lower scores being indicative of lower levels of the specific mindfulness factors, and higher scores indicative of higher levels of the factor observed, with the exception of two subscales which are reverse coded: judgment of others and judgment from others.

Noticing behaviors include the degree to which the child momentarily notices unrelated stimuli as indicated by body movement, followed by a return and focus on the task at hand (Lemberger-Truelove & Zieher, 2019). Sustained attention refers to the amount of time the child focuses on a task. Quality of attention includes the degree to which the child is interacting with and engaged with the task at hand, with a specific focus on the child's engagement with both the objects and the individuals relevant to the task. Judgment is the degree to which the child expresses evaluation of another individual or object. Openness refers to the amount the child is receptive to experiences and/or individuals in their present surrounding. Curiosity includes the degree to which a child is interested in the individuals and elements around them. Judgment of includes the amount of valuation or judgment which is directed towards the child of focus from others. Lastly, openness to refers to the degree to which others show interest and a desire to connect and interact with the child of focus.

Because this study was exploratory in nature and because all participants met criteria for living below the poverty line identified as an Adverse Childhood Experience (ACE), the following factors of the C-OMM were analyzed: sustained attention, quality of attention, openness, and curiosity. Children from disadvantaged backgrounds, particularly those who have experienced ACEs, often struggle with attention regulation (D'Andrea et al., 2012). For that

purpose, sustained attention and quality of attention were assessed and analyzed. Furthermore, children who have experienced ACEs may learn they cannot trust their surroundings and the world around them due to those traumatic experiences. CCPT may help these children as it provides an environment in which they are provided an opportunity to experience and explore the world around them in a safe and supportive relationship (Landreth, 2012; Ray, 2011); therefore, openness and curiosity were assessed and analyzed. Due to the recent developments of this newly created instrument, the C-OMM reliability has not yet been established.

The C-OMM was administered by trained administrators who participated in a training facilitated by C-OMM experts (Lemberger-Truelove & Zieher, 2019). For this study, the C-OMM administrators were trained directly by the developers of the C-OMM in a 4-hour training conducted across 2 weeks. C-OMM administrators were two doctoral students who had completed a master's in counseling, were receiving specializations and advanced training in play therapy, and attended a 2-hour training on assessment administration. The C-OMM takes approximately 30-45 minutes to administer to a child in which 3 cycles of 10-minute observations followed by scoring are completed for each participant. The C-OMM was designed to observe children and their growth in mindfulness over time. The current study, therefore, was the first study to utilize the C-OMM observation as a pre-post observation instrument. The raters conducted observations over a two-week period to establish interrater reliability, in which they conducted simultaneous but independent observations of children in a school setting until they reached a reasonable level of interrater reliability. The interrater reliability intraclass correlation coefficient score was calculated at 0.91.

The Social-Emotional Assets and Resiliency Scale for Preschoolers (SEARS-Pre)

The Social-Emotional Assets and Resiliency Scale for Preschoolers (SEARS-Pre;

Ravitch, 2013) was administered to the teachers of all child participants to complete prior to the start of the eight-week intervention period and directly following the eight-week intervention period. The Social Emotional Assets and Resiliency Scale for Preschools (SEARS-Pre) is a strength-based assessment created to measure the social-emotional competencies and assets of young children ages 3-5 years old (Ravitch, 2013). The SEARS-Pre measures the social and emotional competence of young children, focusing on the following skills: self-regulation, social competence, empathy, responsibility, and emotional knowledge.

The SEARS-Pre was designed to be completed by parents, guardians, or teachers. However, the SEARS-Pre was only validated for use with teachers (Ravitch, 2013). The SEARS-Pre consists of 42 items and has three factors in which it provides overall scores as well as a total score. The three factors include the following: Self Regulation/Social Competence, Emotional Knowledge/Expression, and Empathy/Responsibility. Respondents are asked to consider the child's behavior during the last 3 to 6 months when answering the questions on the SEARS-Pre, and rate each item on a 4-point rating scale that includes the responses Never, Sometimes, Often, and Always. The SEARS-Pre is hand scored by the administrator, with higher scores indicative of higher levels of social and emotional assets.

Reliability estimates for the SEARS-Pre are considered strong with internal consistency being estimated using Cronbach's alpha. The internal consistency scores include the following: .95 for Factor 1 (Self-Regulation/Social Competence), .92 for Factor 2 (Emotion Knowledge/Expression), and .90 for Factor 3 (Empathy/Responsibility). The internal consistency of the total score was .97. The validity of the SEARS-Pre was demonstrated by showing sensitivity to group differences based on gender and age. For example, in the initial development of the SEARS-Pre, teachers consistently rated females as having more strengths and resilience

when compared to males, and teachers reported older preschool children as having more assets when compared to younger preschool children (Ravitch, 2003).

Adverse Childhood Experiences Questionnaire- Expanded (ACE-E)

The Adverse Childhood Experiences questionnaire was administered to child caregivers in order to determine participants' ACEs. The ACES Questionnaire-Expanded was a 25-item questionnaire developed to assess children's experiences of events and includes the original ACEs as well as expanded ACEs identified in recent research to adversely impact functioning (Cronholm et al., 2015; Felitti et al., 1998; Finkelhor et al., 2015; Wade et al., 2016). The ACEs questionnaire, originally developed by Felitti and colleagues (1998) included the original 10 ACEs (Felitti et al., 1998) in addition to expanded ACEs which include community stressors (Cronholm et al., 2015; Finkelhor et al., 2015; Wade et al., 2016). Original ACEs include physical abuse, physical neglect, emotional abuse, emotional neglect, parental separation or divorce, substance abuse in the home, mental health problems in the home, domestic violence, and imprisonment of caretaker. Expanded ACEs include experiencing racism or prejudice, bullying, foster care, adoption, natural disaster, living in an unsafe neighborhood, and witnessing violence. Researchers advocating for the inclusion of expanded ACEs have concluded that inclusion of expanded ACEs have facilitated the ability to identify children who experience adversities both at home and throughout the community (Cronholm et al., 2015; Wade et al., 2016). Studies examining both expanded and original ACEs have found that there is a relationship between individuals who report one ACE and negative outcomes, including mental health problems, physical health problems, and behavioral problems (Finkelhor et al., 2015; Petruccelli et al., 2019; Wade et al., 2016).

The original ACEs questionnaire was endorsed by the Center for Disease Control and the

World Health Organization, with versions of the questionnaire available on both organization's websites for access and use (Center for Disease Control, 2020; World Health Organization, 2018). Because the original ACEs questionnaire was created to assess adult self-report of ACEs, the wording of questions on the ACEs Questionnaire-Expanded was adapted to allow for caregiver reporting of children's ACEs.

Procedures

Recruitment of Participants

A randomized controlled trial was conducted for this study, in which the treatment group (children who received 16 child-centered play therapy sessions) was compared with the waitlist control group (n =). Initially, IRB approval for human subjects research was obtained. Next, permission from the school district to participate in research in the schools was sought and attained. Following IRB approval and permission from the school district, recruitment and the following procedures detailed below were completed. Procedures for this study were conducted as part of a larger research study on the use of CCPT with children who were reported to have academic or behavioral problems in school.

Pre-Data Collection Procedures

Researchers worked with school administrators to identify preschool children who met the following criteria to qualify for this study: (a) children were enrolled in a Head Start preschool program, (b) children were referred to the study by a parent or teacher due to behavioral or academic concerns, (c) children qualified for free or reduced lunch, and (d) children had consent form parent/guardian to participate in the study. After potential participants were referred by teachers or school counselors, the researcher contacted the parents/guardians by giving the children informational letters about the study. The letter invited parents to give

consent for their children to participate in this study. If parents agreed for their children to participate, the parents read, signed, and returned the informed consent form to the researcher.

I provided confidential envelopes to each child's guardian, with the confidential envelopes containing the informed consent and demographic form. Additionally, I provided confidential envelopes to each child's teacher with an informed consent and a SEARS-Pre to complete. The consent forms included the purpose, procedures, and potential risks of the study. After the informed consents were collected, a research team member met with each child participant individually to explain the research study and attain assent.

After all consent was obtained from parents, teachers, and child participants, child participants were randomly assigned into the experimental CCPT group or the waitlist control group. Random assignment with block randomization for group assignment by each school was completed. Electronic randomization software was used to randomize participants. Teachers of child participants in both the experimental and control groups were asked to complete the SEARS-Pre prior to onset of services and directly following the eight-week intervention period.

Additionally, research team members contacted all child caregivers by phone to explain and administer the Adverse Childhood Experiences Questionnaire- Expanded (ACE-E). The procedures for administering the ACE-E included the following:

1. A research team member contacted the child caregiver via phone.
2. The research team member explained the sensitive nature of the items that will be asked in the questionnaire.
3. The research team member explained the limits of confidentiality if the child caregiver disclosed the child's experience of abuse or neglect.
4. Following administration, the research team member ensured the child caregiver did not have any reactions to the sensitive questions being asked during the questionnaire.

For child caregivers who primarily spoke Spanish, the ACE-E was administered by a

research team member in Spanish.

Children were observed in their classrooms by a trained administrator using the Child Observation of Mindfulness Measure (C-OMM) prior onset of the eight-week experimental period and directly following the eight-week experimental period. For consistency, all children were observed during center time. During the C-OMM observation, the trained administrator observed the child during center time for three 10-minute intervals. Furthermore, the assessment administrators established interrater reliability prior to assessing participants for this study, during which they conducted simultaneous and independent observations of children until a degree of consensus was achieved. Assessment administrators were not notified of which group study participants were assigned to in order to ensure research integrity. Parents of child participants were not notified of their child's group assignment until all pre-and post-testing was complete. All information collected was kept confidential in a secure location. Only the primary researchers had access to the list of participants' names.

Treatment Group Procedures

Children randomly assigned to the treatment group received twice weekly, 30-minute CCPT sessions totaling 16 sessions across an 8-week period. All play therapists who provided CCPT sessions abided by the CCPT treatment manual (Ray et al., 2017). In accordance with the manual, the following conditions were ensured: the playrooms were structured to include the necessary toys and toy category to facilitate full expression and creativity, the therapists focused on conveying unconditional positive regard, congruence, and empathic understanding to the child while focusing verbal responses on the categories of responses included in *Child-Centered Play Therapy- Research Integrity Checklist* (CCPT-RIC; Ray et al., 2017). Aligning with the CCPT-RIC, verbal responses included tracking, reflecting content, facilitating decision making

and responsibility, facilitating creativity and spontaneity, esteem building and encouraging, reflecting feelings, facilitating relationship, limit setting, and reflecting larger meaning. In addition to verbal responses, nonverbal components of CCPT were also the foci of the CCPT sessions, which included open and forward-facing body posture, following the child with body posture, and congruent therapist tone in relation to child's affect and therapist responses (Ray, 2011).

The CCPT sessions were conducted in playrooms set up inside each school. Each playroom was structured according to Landreth's (2012) guidelines, and included reality, creative, and aggressive toys. Examples of reality toys include the cash register, doll house, and kitchen. Examples of creative toys include sand, water, paint, and paper. Examples of aggressive toys include the bop bag, rubber knives, and foam swords.

All participating play therapists completed at least two CCPT didactic courses prior to participating in this study. The counselors also participated in weekly play therapy supervision. All play therapists were students currently enrolled in a CACREP-accredited counseling program or were graduates from CACREP-accredited counseling programs. Additionally, all play therapists participated in a two-hour training regarding clinical protocol in a school setting prior to the onset of services.

Nine play therapists facilitated the weekly play therapy sessions for this study. Four counselors were current doctoral students and five counselors were masters-level counselors. All nine play therapists were female and the ethnicities of the counselors included the following: Caucasian (n=6), Latina (n=2), and Asian (n=1).

Fidelity checks were completed using the Child-Centered Play Therapy Research Integrity Checklist (Ray et al., 2017). The checklist was used to ensure adherence to the

treatment manual and includes eight categories of verbal responses in which the play therapist's responses must fall within at least 80% of the time in order to meet CCPT protocol. Fidelity checks were be conducted by a Masters-level student in a CACREP-accredited counseling program who had completed at least two play therapy courses and received two semesters of supervised CCPT supervision. The auditor was trained in how to use the the *Child-Centered Play Therapy Research Integrity Checklist* (Ray et al., 2017). The auditor then randomly selected one video session for each participant and coded verbal responses using the *Child-Centered Play Therapy Research Integrity Checklist* (Ray et al., 2017). Then, the researcher calculated the integrity percentage following completion of the audit. A 98% adherence to protocol among all sessions was attained, ensuring the CCPT treatment protocol and treatment fidelity were met.

Waitlist Control Group Procedures

Children randomly assigned to the waitlist control group did not receive play therapy services during the 8-week experimental portion of the study. However, waitlist control group participants participated in all pre-and post-testing, including the C-OMM and SEARS-Pre assessment. Following the experimental period and all post-testing, waitlist control group participants received at least 16 weekly individual play therapy sessions.

Analysis of Data

Because of the exploratory nature of the research question, independent-samples t-tests were conducted to assess the impact of CCPT, when compared to a waitlist control group, on participants' mindful expressions and social and emotional competencies. Spencer and colleagues (2013) provided a set of flow charts to aid researchers in deciding when it is appropriate to use parametric analyses; according to Spencer et al (2013), an independent

samples t-test should be chosen if the groups have near equal sample sizes, similar skewness, and equal variances.

Independent samples t-tests must include one categorical, independent variable and one continuous, dependent variable. The categorical, independent variable in this study was treatment group. The continuous, dependent variable was difference scores between pre and post testing on the specific mindful expression and social and emotional competency analyzed in the individual independent-samples t-test, and included the following variables: the score on the C-OMM for sustained attention, the score on the C-OMM for quality of attention, the score on the C-OMM for openness, the score on the C-OMM for curiosity, the score on the SEARS-Pre for Self Regulation/Social Competence, the score on the SEARS-Pre for Emotional Knowledge/Expression, the score on the SEARS-Pre for Empathy/Responsibility, and the total score on the SEARS-Pre. For the C-OMM analysis, observations were conducted on the full sample. For the SEARS-Pre analysis, one participant was excluded from the analysis due to the participant's teacher's failure to return the completed pre-test and post-test assessments.

There are five assumptions that must be met when conducting independent-samples t-tests, and they include the following: level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance. The level of measurement assumption was met for each independent-samples t-test that was be conducted because each dependent variable was measured using a continuous scale. The random sampling assumption was met because this study was a randomized controlled trial. Normal distribution assumes that the populations from which the samples are taken are normally distributed and ensured by viewing the histograms obtained from the analyses to ensure that the data are normally distributed; distribution from each independent samples t-test conducted will be reported in the

results section. Homogeneity of variance was met when samples are obtained from populations with equal variances and is indicated in the Levene's test for equality of variance on the statistical output.

Independent samples t-test do not have a specific sample size that must be met in order to conduct analyses with them. However, de Winter (2013) concluded that t-tests can be conducted with samples as small as 2, which would be 4 participants total when conducting an independent samples t-test. De Winter (2013) also noted that conducting t-tests with sample sizes as small as 2 did not result in any statistical drawbacks such as having increased risk of Type I or Type II errors. Therefore, in order to have an adequate sample size, I planned to attain at least 4 participants for my study. Purswell and Ray (2014) noted randomized small group designs, defined as randomized clinical trials which include 30 or fewer subjects, are beneficial for a variety of reasons, including for providing pilot data as they are well constructed studies with randomized control and experimental groups. Furthermore, I interpreted statistical and practical significance of results.

The alpha level to examine the statistical significance for each independent samples t-test was set at .05. Specifically, the independent samples t-tests determined if there was a statistically significant difference between the specific mindful expression and the specific social and emotional competency for children in the treatment and control groups. If the p-value was $p<.05$, then we assumed there was a statistically significant difference between the scores of children in the treatment and control groups and moved to examining the practical significance. Practical significance was determined by the effect size, indicated by Cohen's d. The magnitude of the effect was determined according to Cohen (1977), with .2 being small, .5 medium, and .8 large effect sizes.

APPENDIX C

UNABRIDGED RESULTS

The following results are intended to answer the following research questions: 1) What is the impact of child-centered play therapy on the mindful expressions of preschoolers in Head Start preschool programs? 2) What is the impact of child-centered play therapy on the social and emotional functioning of preschoolers in Head Start preschool programs? In this section, I will present the results of the data analyses, including the statistical and practical significance.

In order to address the research questions, independent samples t-tests were conducted for each dependent variable to evaluate the impact of CCPT on the specific mindful expressions and social emotional competencies being analyzed. All dependent variables were difference scores between pre- and post- testing on the specific mindful expressions and social and emotional competencies analyzed in the independent samples t-tests. Dependent variables included the following factors from the C-OMM, which measured the specific mindful expressions of the preschoolers: sustained attention, quality of attention, openness, and curiosity. Additionally, dependent variables which measured the social and emotional competencies of the preschoolers included the following factors from the SEARS-Pre: Self-Regulation/Social Competence, Emotional Knowledge/Expression, Empathy/Responsibility, and the total score on the SEARS-Pre. An increase in scores on the C-OMM and the SEARS-Pre factors and total score indicate improvement.

C-OMM Factors

Four independent samples t-tests were conducted to evaluate the impact of CCPT on the specific mindful expressions of preschoolers in Head Start preschool programs. The following mindful expressions, which were individual factors from the C-OMM, were analyzed: sustained attention, quality of attention, openness, and curiosity. Results from the four independent

samples t-tests for the C-OMM factors are detailed below. Additionally, group means and standard deviations for all pre- and post-testing C-OMM data are reported in Table C. 1.

Table C. 1

Mean Scores and Standard Deviations on C-OMM Factors

		Intervention Group (n=11)		Waitlist Control Group (n=12)	
		Pretest	Posttest	Pretest	Posttest
Sustained Attention	*M*	5.55	6.30	5.33	5.75
	SD	1.54	0.51	1.68	0.57
Quality of Attention	*M*	5.33	5.85	4.88	5.03
	SD	1.26	0.96	1.02	0.94
Openness	*M*	5.27	5.97	5.11	5.25
	SD	1.37	0.64	1.00	0.89
Curiosity	*M*	2.12	3.61	2.03	2.99
	SD	1.13	1.78	1.28	1.57

Note. An increase in mean scores on the C-OMM factors indicates improvement in mindful expressions.

Sustained Attention

The first independent samples t-test assessed the impact of CCPT on participants' sustained attention scores on the C-OMM. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see Figure C.1), observation indicates an increase in the average sustained attention scores from pre-intervention to post-intervention, marking overall improvement in children's sustained attention.

There was no statistically significant difference in sustained attention mean difference scores for the CCPT intervention group (M = .76, SD = 1.42) and the control group (M = .42, SD = 1.65, $t(21)$ = .53, p = .60, two-tailed). The magnitude of differences in the means (mean

difference = .3397, 95% CI -1 to 1.68) was small (Cohen's *d* = .22). Table C.2 presents the findings.

Figure C.1

Sustained Attention Means Between Groups Over Time

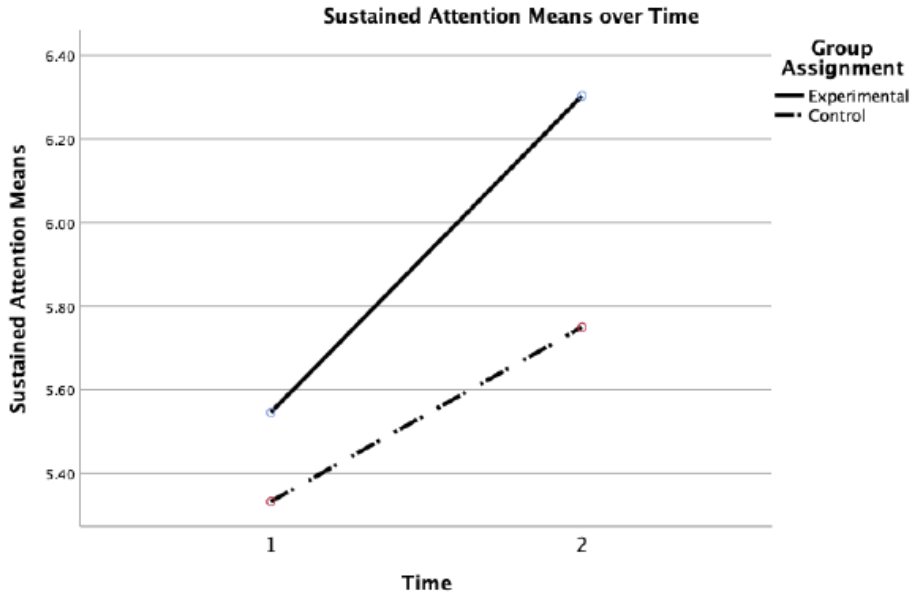


Table C.2

Group Differences for C-OMM Factor Sustained Attention

	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Sustained Attention	.76	1.42	0.42	1.65	.53	.60	.22

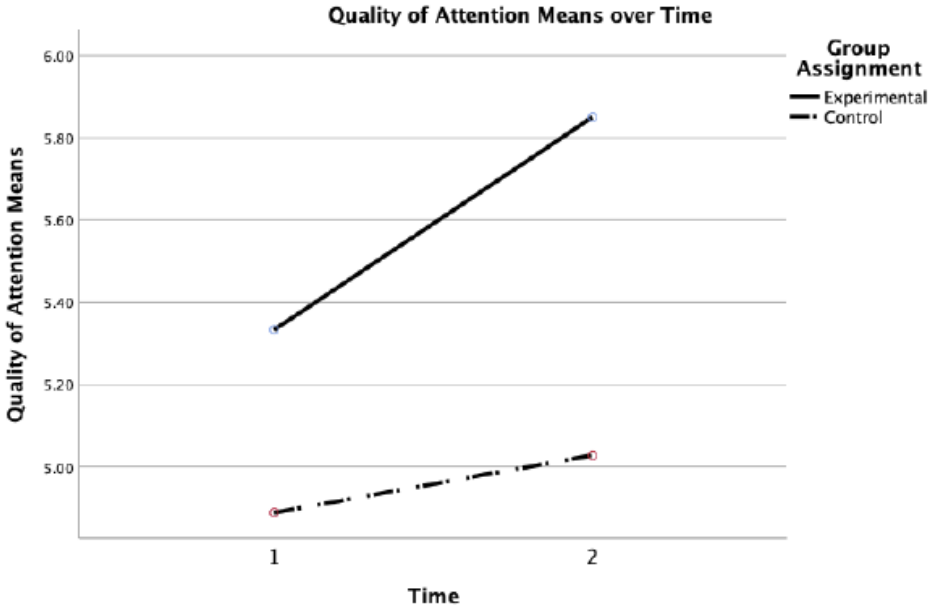
Quality of Attention

The second independent samples t-test assessed the impact of CCPT on participants' quality of attention scores on the C-OMM. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-

intervention (see figure C.2), observation indicates an increase in the average quality of attention scores from pre-intervention to post-intervention, marking overall improvement in children's quality of attention.

Figure C.2

Quality of Attention Means Between Groups Over Time



There was no statistically significant difference in quality of attention mean difference scores for the CCPT intervention group (M = 0.52, *SD* = 1.15) and the control group (*M* = 0.14, *SD* = 1.42, $t(21) = .698$, $p = .493$, two-tailed). The magnitude of differences in the means (mean difference = .38, 95% CI -.75 to 1.5) was small (Cohen's *d* = .29). Table C.3 presents the findings.

Table C.3

Group Differences for C-OMM Factor Quality of Attention

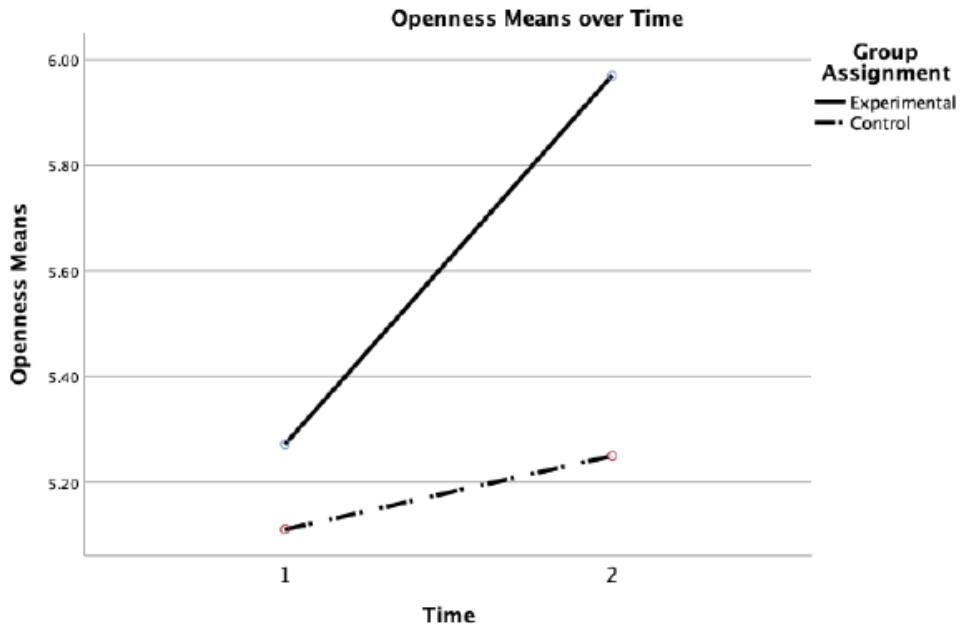
	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Quality of Attention	.52	1.15	0.14	1.42	.698	.493	.29

Opennness

The third independent samples t-test assessed the impact of CCPT on participants' opennness scores on the C-OMM. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.3), observation indicates an increase in the average openness scores from pre-intervention to post-intervention, marking overall improvement in children's degree of opennness.

Figure C.3

Openness Means Between Groups Over Time



There was no statistically significant difference in openness mean difference scores for the CCPT intervention group (M = .70, SD = 1.23) and the control group (M = .14, SD = 1.10, $t(21)$= 1.148, p = .264, two-tailed). The magnitude of differences in the means (mean difference = 0.56, 95% CI -.45 to 1.57) was moderate (Cohen's d = .48). Table C.4 presents the findings.

Table C.4

Group Differences for C-OMM Factor Openness

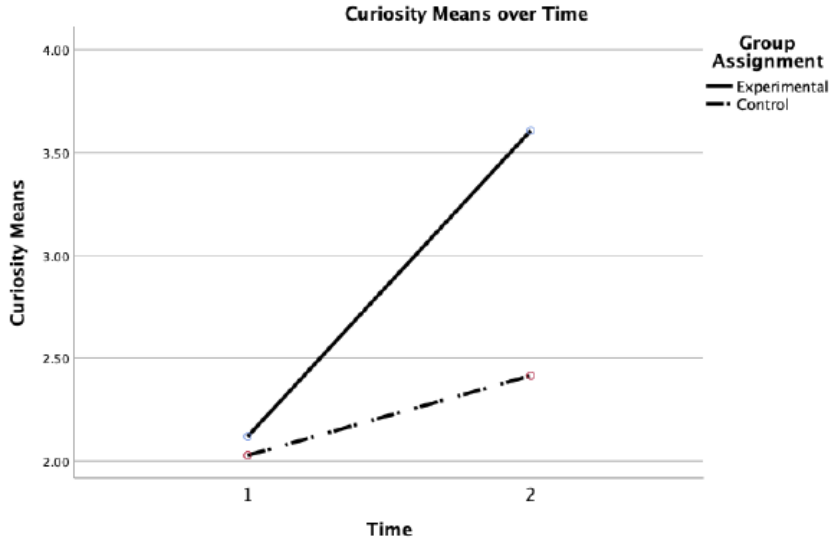
	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Openness	.70	1.23	.14	1.10	1.148	.254	.48

Curiosity

The fourth independent samples t-test assessed the impact of CCPT on participants' curiosity scores on the C-OMM. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.4), observation indicates an increase in the average curiosity scores from pre-intervention to post-intervention, marking overall improvement in children's degree of curiosity.

Figure C.4

Curiosity Means Between Groups Over Time



There was no statistically significant difference in curiosity mean difference scores for

the CCPT intervention group (M = 1.49, SD = 1.51) and the control group (M = .39, SD = 1.27, $t(21)$= 1.896, p = .072, two-tailed). The magnitude of differences in the means (mean difference = 1.1, 95% CI -.11 to 2.3) was large (Cohen's d = .79). Table C.5 presents the findings.

Table C.5

Group Differences for C-OMM Factor Curiosity

	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Curiosity	1.49	1.51	.39	1.27	1.896	0.72	.79

SEARS-Pre Factors

Four independent samples t-tests were conducted to evaluate the impact of CCPT on the social and emotional competencies of preschoolers in Head Start preschool programs. The following social and emotional competencies, which were individual factors from the SEARS-Pre, were analyzed: Self-Regulation/Social Competence, Emotional Knowledge/Expression, and Empathy/Responsibility. Additionally, one independent samples t-test was calculated for the SEARS-Pre total score. The participants' teachers completed all SEARS-Pre assessments. Results from the four independent samples t-tests are detailed below. Additionally, group means and standard deviations for all pre- and post-testing SEARS-Pre data are reported in Table C. 6.

Table C. 6

Mean Scores and Standard Deviations on SEARS-Pre Factors & Total Score

		Intervention Group (n=10)		Waitlist Control Group (n=12)	
		Pretest	Posttest	Pretest	Posttest
Self-Regulation/ Social Competence	*M*	13.70	16.90	11.7	12.67
	SD	9.32	7.61	4.48	4.23

(table continues)

		Intervention Group (n=10)		Waitlist Control Group (n=12)	
		Pretest	Posttest	Pretest	Posttest
Emotional Knowledge/ Expression	*M*	8.60	9.90	10.33	8.58
	SD	6.85	5.51	5.60	5.62
Empathy/Responsibility	*M*	4.30	5.30	4.83	4.0
	SD	3.34	3.53	2.55	2.52
Total Score	*M*	26.60	32.10	26.33	25.25
	SD	18.51	15.67	11.26	10

Note. An increase in mean scores on the SEARS-Pre indicates improvement in social-emotional competencies.

Total Score

The first independent samples t-test assessed the impact of CCPT on participants' total social and emotional competence scores on the SEARS-Pre as reported by participants' teachers. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.5), observation indicates an increase in the average total social and emotional competence scores from pre-intervention to post-intervention for participants in the experimental group, marking overall improvement in children's degree of total social and emotional competence. Additionally, observation indicates a decrease in the average total social and emotional competence scores for participants in the waitlist control group from pre-intervention to post-intervention.

There was no statistically significant difference in total mean difference scores for the CCPT intervention group (M = 5.5, SD = 10.16) and the control group (M = -1.08, SD = 8.30, $t(20)$= 1.674, p = .11, two-tailed). The magnitude of differences in the means (mean difference = 6.583, 95% CI -1.62 to 14.79) was large (Cohen's d= 0.71). Table C.7 presents the findings.

Figure C.5

Total Social and Emotional Competence Means Between Groups Over Time

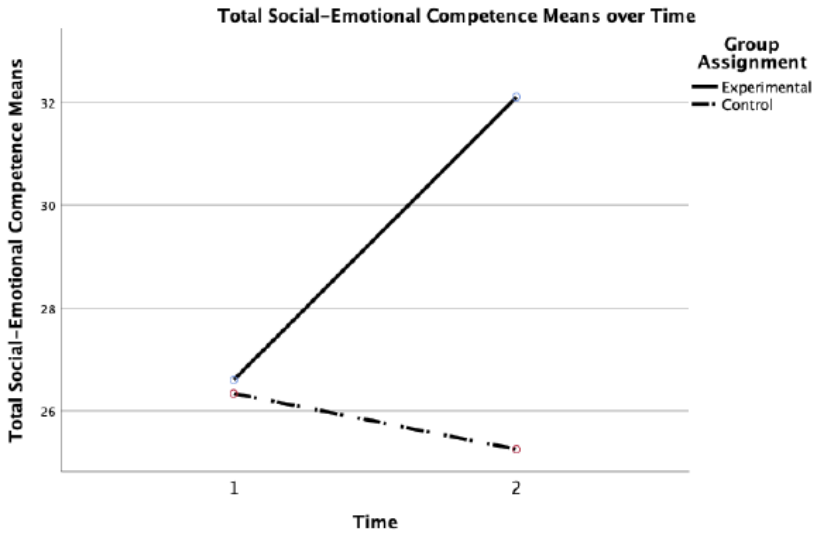


Table C.7

Group Differences for SEARS-Pre Total Scores

	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Total Scores	5.5	10.16	-1.08	8.30	1.674	.11	.71

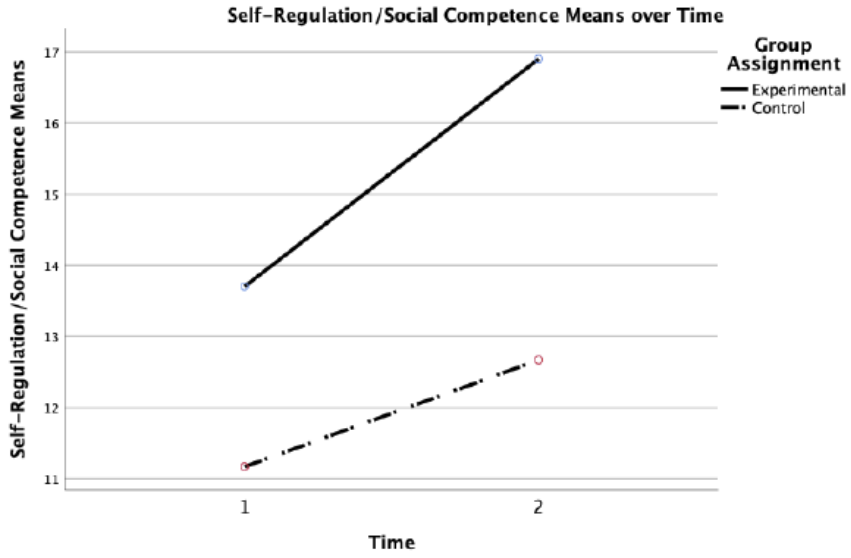
Self-Regulation/Social Competence

The first independent samples t-test assessed the impact of CCPT on participants' self regulation and social competence scores on the SEARS-Pre as reported by participants' teachers. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.6), observation indicates an increase in the average self-regulation/social competence scores from pre-intervention to post-

intervention, marking overall improvement in children's degree of self-regulation/social competence.

Figure C.6

Self-Regulation/Social Competence Means Between Groups Over Time



There was no statistically significant difference in self regulation/social competence mean difference scores for the CCPT intervention group (M = 3.2, SD = 6.21) and the control group (M = 1.5, SD = 3.75, $t(20)$= .792, p =.438, two-tailed). The magnitude of differences in the means (mean difference = 1.7, 95% CI - 2.78 to 6.18) was small (Cohen's d = .33). Table C.8 presents the findings.

Table C.8

Group Differences for SEARS-Pre Factor Self-Regulation/Social Competence

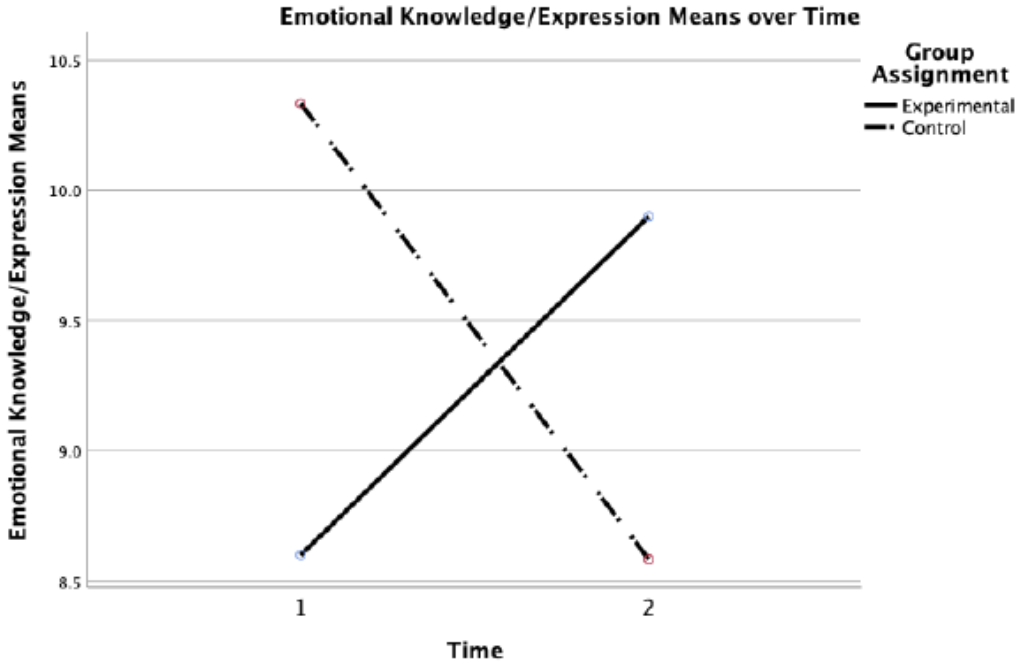
	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Self-Regulation/ Social Competence	3.2	6.21	1.5	3.75	.792	.428	.33

Emotional Knowledge/Expression

The second independent samples t-test assessed the impact of CCPT on participants' emotional knowledge and expression scores on the SEARS-Pre as reported by participants' teachers. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.7), observation indicates an increase in the average emotional knowledge/expression scores for participants in the experimental group from pre-intervention to post-intervention, marking overall improvement in children's degree of emotional knowledge/expression. Additionally, observation indicates a decrease in the average emotional knowledge/expression scores for participants in the waitlist control group from pre-intervention to post-intervention.

Figure C.7

Emotional Knowledge/Expression Means Between Groups Over Time



There was no statistically significant difference in emotional knowledge/expression mean difference scores for the CCPT intervention group (M = 1.3, SD = 4.32) and the control group (M = -1.75, SD = 4.14, $t(20)$=1.688, p =.107, two-tailed). The magnitude of differences in the means (mean difference = 3.05, 95% CI -0.72 to 6.82) was large (Cohen's d = .72). Table C. 9 presents the findings.

Table C.9

Group Differences for SEARS-Pre Factor Emotional Knowledge/Expression

	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Emotional Knowledge/ Expression	1.3	4.32	-1.75	4.14	1.688	.107	.72

Empathy/Responsibility

The third independent samples t-test assessed the impact of CCPT on participants' empathy and responsibility scores on the SEARS-Pre as reported by participants' teachers. The assumptions for level of measurement, random sampling, independence of observations, normal distribution, and homogeneity of variance were all reasonably met. When examining the means of participants pre-intervention to post-intervention (see figure C.8), observation indicates an increase in the average empathy/responsibility scores for participants in the experimental group from pre-intervention to post-intervention, marking overall improvement in children's degree of empathy/responsibility. Additionally, observation indicates a decrease in the average empathy/responsibility scores for participants in the waitlist control group from pre-intervention to post-intervention.

There was a statistically significant difference in empathy/responsibility mean difference scores for the CCPT intervention group (M = 1.00, SD = 1.89) and the control group (M =- 0.83,

SD = 1.47, *t*(20)=2.57, *p* =0.018, two-tailed). The magnitude of difference in the means (mean difference = 1.833, 95% CI 0.34 to 3.32) was very large (Cohen's *d* = 1.08). Table C.10 presents the findings.

Figure C.8

Empathy/Responsibility Means Between Groups Over Time

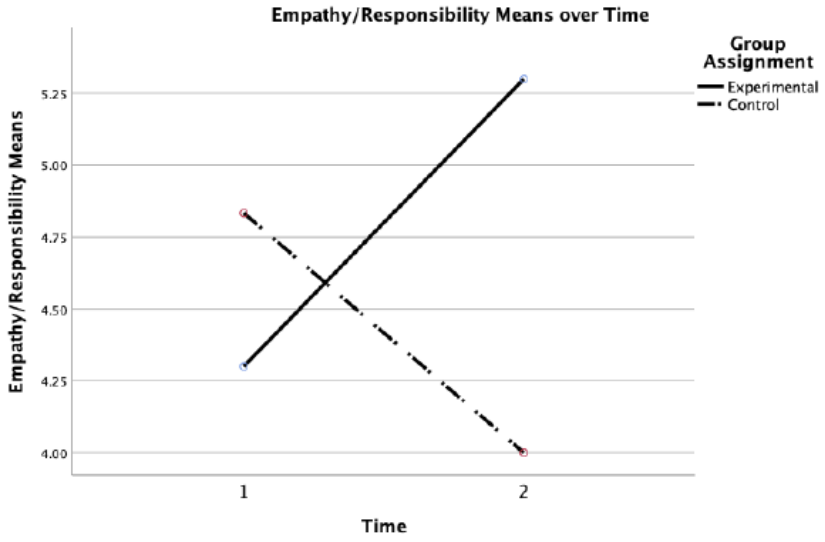


Table C.10

Group Differences for SEARS-Pre Factor Empathy/Responsibility

	Experimental		Control		t(21)	p	Cohen's d
	M	SD	M	SD			
Empathy/Responsibility	1.00	1.89	-0.83	1.47	2.57	0.018	1.08

APPENDIX D

DISCUSSION

The current study sought to explore the impact of CCPT on the mindful expressions and social and emotional competencies of children in Head Start preschool programs, examining the difference pre-intervention to post-intervention between children receiving CCPT and those in a waitlist control group. Although there was not a statistically significant difference in in mindful expressions between experimental groups, effect sizes of specific mindful expressions examined indicated CCPT demonstrated a moderate treatment effect on children's openness and a large treatment effect on children's curiosity. Furthermore, when examining the impact of CCPT on the social and emotional competencies of children, results indicated that teachers of children who participated in CCPT perceived an overall large effect on improvement in social emotional competencies, with statistically significant change in empathy and responsibility for children who participated in the CCPT intervention when compared to children who did not receive intervention services. Effect sizes of social and emotional competency factors analyzed in the study indicated teachers reported CCPT demonstrated a very large treatment effect on children's empathy and responsibility, a large effect on children's emotional knowledge and expression, and small effect on self-regulation and social competence. These results include important and relevant considerations and implications, which will be detailed below along with potential limitations of the findings as well as suggestions for future research.

Mindfulness Factors

While directive mindfulness interventions have resulted in positive effects for children, such as enhancing regulation, attention, and empathy (Felver et al., 2017; Flook et al., 2010; Flook et al., 2015; Lemberger-Truelove et al., 2018; Zenner et al., 2014), examining nondirective modalities that enhance mindful expressions in disadvantaged children may be advantageous for a variety of reasons (Chadwick & Gelbar, 2016; Greenberg & Harris; Shute, 2019; Treleaven,

2018; Van Dam et al., 2018). While one meta-analysis has suggested that mindfulness in adults may be strengthened following participation in nonmindfulness interventions (Xia et al., 2019), no research to date has examined children's mindfulness following participation in nonmindfulness interventions. Because of the similarities between goals of CCPT and mindfulness facets, I hypothesized that participation in CCPT may influence the mindful expressions of children.

The difference from pre-test to post-test of four separate mindfulness factors were analyzed for the purposes of this study: sustained attention, quality of attention, openness, and curiosity. While all four mindfulness factors analyzed were not found to be statistically significant, two of the mindfulness factors, openness and curiosity, resulted in notable practically significant findings, and two, sustained attention and quality of attention, resulted in small practical significance. In this section, the results and possible rationale for the findings are explored.

Attention

According to the statistical results of the two attention-related mindfulness factors analyzed in the study, both groups of children (CCPT and waitlist control group) improved in sustained attention and quality of attention from pre- to posttest. However, although participants in the CCPT group improved slightly more than participants in the waitlist control group (a 0.75-point improvement as compared with a 0.42-point improvement on sustained attention and a 0.52-point improvement as compared with a 0.15-point improvement on quality of attention), these differences were not substantial enough to result in statistical significance, with practical significance reporting small effect sizes for both sustained attention and quality of attention.

The lack of statistically significant results on the two attentional factors of mindfulness examined in this study, sustained attention and quality of attention, are not surprising given the research on preschooler development (Petty, 2016; Wood, 2017). Sustained attention refers to the amount of time the child focuses on a task, while quality of attention includes the degree to which the child is interacting with and engaged with the task. Research has supported the notion that children from disadvantaged backgrounds and children who have experienced ACEs struggle with attention regulation (Jimenez et al., 2017). However, preschoolers' attention spans are slowly growing throughout the preschool years (Petty, 2016; Wood, 2017). At the age of five, preschool children have an average attention span of approximately 15-20 minutes maximum (Wood, 2017). Therefore, while CCPT has been effective in reducing inattention symptoms in children ages 5-8 years old who have ACEs (Kram, 2019), the expected developmental trajectory of preschool children may mitigate the ability for CCPT to have a significant impact on strengthening young children's attentional abilities. Results from the current study are consistent with research that attention in preschoolers for both experimental groups improved over the course of the study.

Openness and Curiosity

Openness, defined as the degree to which a child is receptive to experiences and/or individuals in their present surroundings, was another mindfulness factor examined and analyzed in this study. although participants in the CCPT group improved slightly more than participants in the waitlist control group on openness (a 0.7-point improvement as compared with a 0.14-point improvement), these differences were not substantial enough to result in statistical significance. However, examination of the practical significance revealed a moderate effect size,

indicating children in CCPT demonstrated an observable effect on preschool children's level of openness when compared with waitlist control group children.

The fourth mindfulness factor analyzed was curiosity, which includes the degree to which a child is interested in and interacting with the individuals and elements around them. Participants in the CCPT group improved more than participants in the waitlist control group on curiosity (a 1.49-point improvement as compared with a 0.96-point improvement); however, these differences were not substantial enough to result in statistical significance. Examination of the practical significance of curiosity revealed a large effect size, suggesting that while the differences between CCPT and waitlist control group children's curiosity levels were not statistically significant, children in CCPT did in fact demonstrated higher levels of curiosity.

Openness and curiosity were two of the mindfulness factors chosen for inclusion in the current study because of their similarities to the goals of CCPT. Children from disadvantaged backgrounds, including children who have experienced ACEs, often learn from their life experiences and traumatic experiences that they cannot fully trust the world around them. They may be hesitant to engage with their environment and may be cautious of establishing and engaging in relationships with others as a result of those experiences. According to Landreth (2012) one of the primary goals of CCPT is for the child to "experience a feeling of control" (pp. 84-85), while simultaneously developing a therapeutic relationship with the play therapist, which is the essential factor for change and growth (Axline, 1947; Landreth, 2012).

In CCPT, the play therapist engages with the child to establish trust, a feeling of safety, and a feeling of permissiveness in the playroom, utilizing facilitating creativity, esteem building/encouraging, and facilitating relationship responses, among others, to convey to the child that they can fully explore the environment and self. An outcome of CCPT, therefore, may

be that the child begins to feel safer and more trusting in relationships and environments outside of the playroom. Consequently, the child may be encouraged and receptive to engage and interact with the environment in more adaptive ways.

Higher scores on the openness factor of mindfulness are reflective of a higher degree of interest the child shows others and tasks. For example, the child is welcoming and responsive to others as well as to activities and is open to engaging with all peers and tasks. Because children from disadvantaged backgrounds may be hesitant to engage with others, a positive outcome of CCPT would be a higher level of openness which was demonstrated in this study.

Similarly, a higher degree of curiosity on the curiosity factor of mindfulness reflects a child's greater degree of inquiry and engagement with tasks and objects. For example, a child with a high level of curiosity would try new ways of engaging with objects in novel ways, experimenting with the way they interact with their environment. The child might ask a variety of questions regarding the task at hand and experiment with interacting with the object in novel ways which were not initially presented to them. A high degree of curiosity, therefore, would reflect a level of comfort and trust in the environment, which would be indicative of growth in CCPT.

Overall, while the findings of this study did not result in statistically significant findings on any of the four mindfulness factors analyzed (an outcome likely influenced by small sample size), the practically significant findings suggest that participation in CCPT may influence children's levels of mindfulness. Specifically, according to the practically significant findings, participation in CCPT resulted in increases in children's levels of openness and curiosity when compared with children in the waitlist control group. This study is unique in that it is the first study to examine the influence of CCPT on the mindful expressions of children; results suggest

that it may be beneficial to continue to examine how CCPT influences mindfulness levels in children.

Social-Emotional Competencies

The difference in CCPT participants' social-emotional competencies from pre-test to post-test, when compared with a waitlist control group, were analyzed for the purposes of this study. In addition to total social-emotional competencies, the social-emotional factors self-regulation/social competence, emotional knowledge/expression, and empathy/responsibility were also analyzed. For overall social emotional competence, children in the CCPT group were reported to show large practically significant improvement compared to children in the control group. Of particular note is that while the children in CCPT group had improved scores in overall social emotional competencies, the children in the control group were reported to have lower scores. Among the three social emotional factors, self-regulation/social competence resulted in small effect size while emotional knowledge/expression and empathy/responsibility resulted in large effect sizes. Specifically, the empathy/responsibility factor resulted in statistically significant improvement with a very large effect for children in CCPT as compared with children in the control group. These findings suggest that CCPT may have contributed to the development of social-emotional competencies in the current sample of Head Start preschool students.

Ray and colleagues (2020) found that children with increased ACEs also had lower scores on social-emotional competencies as measured by the SEARS-P, suggesting that children who are from disadvantaged backgrounds may struggle with social-emotional competencies even more than non-disadvantaged youth. Furthermore, there are many benefits to developing social-emotional competence in preschool, including enhancing kindergarten readiness, kindergarten

achievement, and academic development (Arnold et al., 2012; Denham et al., 2014; Torres et al., 2015). Overall, CCPT therapists sought to create an environment whereby Head Start preschool children were able to develop and enhance their social-emotional competencies within the therapeutic relationship. In the next sections, the results and possible rationale for the specific social-emotional factors analyzed, including overall social-emotional competence, are explored.

Total Social-Emotional Competence

Although teachers' reports did not result in statistically significant differences between CCPT and the waitlist control groups on overall social-emotional competence, a large effect size was detected which indicates observable change in overall competence when reported by teachers. The CCPT intervention group demonstrated a 5.5 point increase in their mean score compared to control group which had a 1.08 point decrease. Based on teacher pretest and posttest results, children in the CCPT intervention strengthened and those in waitlist control group slightly decreased social emotional competence over time.

Previous research has supported the positive effect of CCPT on elementary-aged children's social-emotional competencies (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, 2021; Wilson & Ray, 2018). While numerous studies have reported statistically significant parent reported improvements in CCPT participants' social-emotional competencies (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, 2021; Wilson & Ray, 2018), only one study has found statistically significant teacher reported improvements in CCPT participants' social-emotional competence, and, more specifically, in the social-emotional competence responsibility (Taylor & Ray, 2021). The current study is unique in that it examined the impact of CCPT on the social and emotional competencies of preschool children and therefore utilized a preschool-based

assessment to analyze social-emotional competence. Furthermore, the current study exclusively utilized teacher report of children's social-emotional competencies.

The non-statistically significant findings of teacher report of children's social-emotional competencies are consistent with previous play therapy research, which has demonstrated that while parent report often has shown statistically significant improvements in social-emotional competencies as a result of participation in CCPT, teacher reports have only rarely resulted in practically significant results (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, 2021; Wilson & Ray, 2018). Cheng and Ray (2016) examined the impact of child-centered group play therapy (CCGPT) on the social-emotional assets of kindergarten children and found parents of children who participated in CCGPT reported statistically significant increases in children's overall social and emotional competencies, social competence, and empathy as indicated by the SEARS-P. Teachers of children participating in the CCGPT group and the waitlist control group both reported increases in children's overall social and emotional competencies, however, which resulted in non-statistically significant findings (Cheng & Ray, 2016). Cheng and Ray (2016) theorized that the lack of statistically significant findings from teachers may be because of the lack of time the teachers spent completing the assessments in addition to the quality of teacher-child relationships and their influence on the children's social and emotional development.

Wilson and Ray (2018) conducted a randomized controlled trial to investigate the difference between elementary school children's aggression, self-regulation, and empathy following participation in CCPT when compared to a waitlist control group and found statistically significant results for parent report of children's self-regulation and empathy following participation in CCPT but non statistically significant findings for teacher report of children's self-regulation and empathy when compared with a waitlist control group. Wilson and

Ray (2018) hypothesized that the lack of statistically significant teacher reported changes in social-emotional competencies may be because of the need for longer treatment for children with aggression to demonstrate changes in the school environment.

Blalock and colleagues (2019) examined the impact of individual and group CCPT on the social-emotional assets of elementary school children. Results from Blalock and colleagues (2019) indicated parents reported improvement in individual and group CCPT children's overall social-emotional assets, self-regulation/responsibility, and social competence when compared with the waitlist control group. However, there was no statistically significant difference between teacher reported social-emotional assets of children in the individual CCPT, group CCPT, or waitlist control group. Blalock and colleagues (2019) hypothesized that the lack of statistically significant findings in teacher reports may have been because of the lack of sensitivity of the SEARS-T to detect subtle changes and the lack of time teachers had to appropriately and thoroughly complete the assessments.

Lastly, Taylor and Ray (2021) examined the impact of CCPT on African-American children's social-emotional competencies when compared to waitlist control group participants, assessing social-emotional competencies via parent and teacher reports. Findings from Taylor and Ray (2021) reported statistically significant and practically significant improvements in parents report of CCPT participants growth in social-emotional competencies when compared to waitlist control group participants. Teacher reports revealed teachers observed statistically and practically significant improvements in CCPT participants' responsibility, while observing practically significant improvements in effect sizes of teacher reported overall social-emotional competencies, social competence, and empathy. Taylor and Ray (2021) theorized that the difference between statistically significant findings for parent report when compared to teacher

report might relate to the harsh treatment of African American students in educational settings, thus relating to the more negative scoring on teacher reports when compared to parent reports.

While the detailed studies differ from the current study in that they examined elementary-aged children and therefore utilized the SEARS instead of the SEARS-Pre intended for preschool-aged children, the rationale for the lack of statistically significant findings on teacher reports may be similar (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, 2021; Wilson & Ray, 2018). Additionally, the low sample size likely suppressed meeting the statistically significant threshold. Next, I will detail and discuss the results of the factors in which results were notable, specifically, emotional knowledge/expression and empathy/responsibility.

Emotional Knowledge/Expression

Emotional knowledge and expression was the social and emotional competence factor which includes the ability to identify emotions of self and others as well as understanding the rationale for feeling that way. Participants in the CCPT group improved in emotional knowledge and expression when compared with the waitlist control group who decreased their emotional knowledge and expression (a 1.3 point improvement when compared with a 1.75 point decline); however, these differences were not substantial enough to result in statistical significance. Examination of practical significance revealed a large effect size, suggesting the differences between the CCPT and waitlist control group's change in emotional knowledge and expression pre-test to post-test were noteworthy.

Preschool children's expressiveness and emotional knowledge has been found to be related to preliteracy performance and academic achievement (Curby et al., 2015; Torres et al., 2015), suggesting the importance of preschoolers' development of emotional knowledge and expression. In a study examining 91 Head Start preschool children, researchers found that

teacher reports of children's emotional expressiveness in addition to children's emotional knowledge were both positively related to preliteracy skills as assessed by the PALS-PreK assessment (Curby et al., 2015). Additionally, Torres and colleagues (2015) found a direct and positive relationship between emotional knowledge and academic achievement; results indicated emotional knowledge, measured at the end of the preschool year, predicted academic achievement measured one year later.

Preschool aged-children are just beginning to have the ability to describe their emotions with words and may therefore have difficulty expressing themselves (American Academy of Pediatrics, 2019; Balch, 2016). The climate of the CCPT relationship is one in which there is a focus on understanding and reflecting children's feelings (Axline, 1947). The emphasis on allowing children the ability to express all emotions, both positive and negative feelings, allows children the ability to feel free to express and process life events and feelings within the playroom, while the therapist responds with a conveyance of understanding and empathy, thereby potentially facilitating children's ability to understand and express their emotions.

Empathy/Responsibility

Teachers of children participating in CCPT reported statistically and practically significant improvement, with a very large effect size, in empathy and responsibility when compared with teachers of children in the waitlist control group, indicating the positive effect of CCPT on disadvantaged preschool children's empathy and responsibility. According to the SEARS-Pre assessment (Ravitch, 2013), the empathy and responsibility factor measures children's ability to recognize and understand the emotions of others and be socially independent. Previous research has supported the effectiveness of CCPT on increasing the empathy of children as reported by parents (Cheng & Ray, 2016; Wilson & Ray, 2017);

however, previous research has not found CCPT to have an effect on enhancing the empathy of elementary-aged children or on strengthening empathy of children as noted by teacher report.

While recognizing and understanding others' emotions is beneficial for children of any age, development of empathy is essential for preschool children. Because preschool children are just beginning to value and enter into relationships with peers, development of empathy is essential in order to have successful interpersonal relationships (American Academy of Pediatrics, 2019; Balch, 2016; Dillman Taylor, 2016; Lee, 2016). Furthermore, The Head Start Early Learning Outcomes Framework (Administration for Children & Families, 2015), which details the tasks essential for young children's academic and long-term success, indicates children should be able to engage in positive social interactions with other youth and develop at least one to two friendships by 5 years of age, further indicating the importance of empathy development in the preschool years.

CCPT may facilitate the development of children's empathy because one of the foundational six necessary and sufficient conditions in person-centered theory is the therapist's level of empathic understanding for the client (Rogers, 1957). Therefore, through the therapeutic relationship with the play therapist, the child is provided an environment in which "there is an underlying message that the client's world is a valuable world, one in which the therapist has the utmost respect for the client's experience and abilities" (Ray, 2011, pp. 66-67). Landreth (2012) noted that while empathic understanding is one of the most difficult factors in CCPT, it is also the most significant.

Similarly, one of the goals of CCPT is for children to "assume greater self-responsibility" (Landreth, 2012, p. 84). Skills such as facilitating decision making responses and returning responsibility responses utilized by the therapist in CCPT facilitate the ability for children to

become more responsible. Through the CCPT sessions, the child is provided an opportunity to learn that they are capable of doing for themselves and successfully making their own choices. Overall, CCPT appeared to create a therapeutic environment for the advancement of empathy and responsibility in Head Start preschool children.

Study Limitations

The current findings offer valuable information regarding the effectiveness of CCPT on strengthening mindful expressions of children's dispositional mindfulness and increasing social-emotional competencies; however, there are also important and relevant limitations to consider in order to accurately interpret the results of this study. The following limitations will be discussed in this section: exploratory nature of this pilot study, coronavirus pandemic restrictions, sample size, and assessment utilized.

This study was an exploratory pilot study examining the effectiveness of CCPT on the mindful expressions and social and emotional competencies of preschoolers in Head Start preschool programs. Specifically, this study was exploratory in nature because this was the first study to examine the relationship between CCPT and mindful expressions. Because the study was exploratory in nature, the generalizability of findings is limited (Purswell & Ray, 2014). Furthermore, while the study did not specifically control for prior exposure to CCPT intervention, the nature of the randomized controlled trial has been noted to strengthen the internal validity of studies and therefore would likely have prevented influence from prior CCPT exposure affecting the results of this study.

This study was originally intended to be conducted over two academic school years, therefore providing a robust sample size. Because of the coronavirus pandemic, which began in March 2020, the researchers were not approved to conduct research or clinical sessions in the

school district in which the research was being conducted for the 2020-2021 academic school year. Therefore, the researchers heavily altered the research proposal and current study to accommodate the inability to conduct the second set of research in the 2020-2021 academic school year. Because of the significant change in overall sample size, the purpose of the study, the number of participants included in the study, and the statistical analyses utilized for the study were all affected.

The sample size of the current study was 23 participants, providing another limitation of the study and potential relevancy of the findings. Small sample sizes are less likely to produce statistically significant results (Thompson, 2002). The small sample size may have been the reason that many of the findings in this study, including the four mindful expressions analyzed as well as some of the social and emotional competencies, resulted in non-statistically significant results. However, Thompson (2002) noted that effect sizes are imperative to report and discuss because statistical tests are heavily influenced by sample sizes. While the practical significance of the factors analyzed were noted and discussed in an attempt to discuss the importance and relevance of the findings, a larger sample size may have resulted in statistically significant results. Additionally, in the current study, confidence intervals for difference scores represented a wide range indicating that results may have been impacted by large gains or decreases among the sample. Therefore, a larger replication study may be beneficial in order to further explore the relationships between CCPT, mindful expressions, and social and emotional competencies.

Lastly, the C-OMM assessment is a newly developed instrument, has been utilized in a small number of studies, and is still undergoing developments. Therefore, the reported reliability of the overall assessment as well as the individual reliability for the components of the C-OMM have not yet been reported. Additionally, the C-OMM was not originally designed as a pre-post

test instrument, as it was initially designed to measure children's growth in mindfulness over time (Lemberger-Truelove & Zieher, 2019). The current study utilized the C-OMM observation as a pre-post intervention instrument and is therefore the first study to use the C-OMM in this way. Using the C-OMM as a pre-post intervention assessment instead of using it to measure children's growth in mindfulness at multiple points over the course of the experimental period may have influenced the results as it was not how the C-OMM was initially intended to be utilized.

Implications

The effectiveness of CCPT with children experiencing emotional and behavioral concerns has been demonstrated over time (Bratton et al., 2005; Lin & Bratton, 2005; Ray et al., 2015). Results of the current study suggest that CCPT may be an effective intervention to enhance specific mindful expressions and social-emotional competencies of disadvantaged preschool children in Head Start programs. In this section, the clinical and research implications will be detailed.

Clinical Implications

Children in Head Start programs face a number of challenges due to being from disadvantaged backgrounds. In order to attend a Head Start program, children must be from a low-income family, be a child in foster care, be homeless, or be a child from a family receiving public assistance, and are often living in poverty (U.S. Government, n.d.). Children in Head Start programs benefit from added support and services, therefore, in order to aid their emotional and academic development. Bratton and colleagues (2013) established the clinical significance of CCPT as an early mental health intervention for at-risk children in Head Start programs. The

current study provides added support for the effectiveness of CCPT with children from disadvantaged backgrounds.

Disadvantaged children may be viewed more negatively by their teachers and parents because of their increased difficulties. In the current study, the lack of statistically significant findings on the teacher reports of social-emotional competencies, including total social-emotional competence, emotional knowledge/expression, and self-regulation/social competence, are consistent with previous research findings (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, 2021; Wilson & Ray, 2018). In light of these findings, clinicians may benefit from providing the teachers and parents of disadvantaged children with additional support and education due to the increased difficulties they face. Providing increased support and education to parents and teachers of disadvantaged children may allow the parents and teachers the opportunity to more fully understand the children and their experiences, increase their ability to provide needed support to the children, and may also enhance the ability for the teachers and parents to see the children in a more positive light.

Children who have experienced trauma benefit from supportive relationships, consistency, and security (Hays-Grudo & Morris, 2020). In the current study, children in the experimental group completed 16 twice-weekly CCPT sessions over an eight-week period. The conditions present within the CCPT sessions likely benefitted the children for several reasons. Specifically, the CCPT sessions offered the children predictability and security through the consistency of the twice-weekly sessions, the stability of the toys in the playroom and their specific placement which was unchanged session-to-session, and through the relationship with the play therapist.

The current study was an exploratory study and the first to examine the impact of CCPT

on the mindful expressions in children. While one meta-analysis has suggested adult levels of mindfulness may change as a result of participation in nonmindfulness-based interventions (Xia et al., 2019), no previous studies have examined the impact of nonmindfulness-based interventions on the mindfulness levels of children. CCPT is one developmentally appropriate intervention for children which offers many qualities that align with mindfulness principles, including nonjudgement, promotion of self-acceptance, and an environment of permissiveness and openness. Results from the current study suggest that CCPT may be an effective intervention to enhance the mindfulness qualities in children.

Research Implications

Based on the findings and limitations detailed in the present study, I have multiple recommendations for future research I will detail below.

1. The current study was a preliminary study with a randomized small group design and therefore included a small sample size of 23 participants total. As Purswell and Ray (2014) recommended, promising pilot studies may be used to develop larger studies that may be more widely generalizable. Therefore, it would be beneficial to replicate this study to continue to explore the relationship between CCPT and the mindful expressions and social-emotional competencies of preschool children with a larger sample size.

2. An additional consideration for future research is to consider assessing the mindful expressions and social emotional competencies over multiple points throughout the study instead of solely assessing pre-intervention and post-intervention. Assessing over multiple points may increase the richness of the results and be more consistent with the C-OMM assessment's intended use (Lemberger-Truelove & Zieher, 2019). For example, researchers may consider assessing participants every two weeks throughout the duration of the intervention.

3. Participants in the experimental group of the current study participated in 16 twice-weekly CCPT sessions. While 16 sessions of CCPT has been shown to be advantageous, future studies examining levels of mindfulness in children may consider increasing the amount of CCPT sessions as such qualities may take longer to demonstrate as a result of treatment. For example, Bratton and colleagues (2005) reported the optimal effects of CCPT with 30-40 sessions.

4. The lack of statistically significant findings on the teacher reports of social-emotional competencies are consistent with previous research findings (Blalock et al., 2019; Cheng & Ray, 2016; Taylor & Ray, in press; Wilson & Ray, 2018). A recommendation for future research is to consider studying the effects of CCPT on social-emotional competencies of preschool children while utilizing both parent and teacher report in order to compare the findings. While the SEARS-Pre was only validated for use with teachers, it was initially designed for use with parents, teachers, or guardians (Ravitch, 2013).

5. While one meta-analysis has found adult levels of mindfulness may change as a result of participant in nonmindfulness-based interventions (Xia et al., 2019), the current study is the first to examine the effects of CCPT on the mindful expressions of children. A recommendation for future research is to continue examining the relationship between participation in CCPT and levels of mindfulness in children, potentially replicating the study with a larger sample size and with additional assessments such as a mindfulness assessment that utilizes parent report.

Conclusion

Preschool children from disadvantaged backgrounds often face increased hardships throughout their lives as a result of being disadvantaged. Economically disadvantaged children, for example, are at greater risk of experiencing additional adverse childhood experiences (ACEs)

throughout their lives, which puts them at increased risk for social-emotional struggles, problematic behaviors, and difficulty with school functioning (Bethell et al., 2014; Blodgett & Lanigan, 2018; Choi et al., 2019; Clarkson Freeman et al., 2014; Cronholm et al., 2015; Crouch et al., 2019; Hinjosa et al., 2019; Jimenez et al., 2016; Kerker et al., 2015; Ray et al., 2020). Due to the significance of the challenges disadvantaged preschool children face, the current study was designed supports the implementation and effectiveness of counseling with children from disadvantaged backgrounds.

In this study, the impact of CCPT on the mindful expressions and social emotional competencies of preschool children in Head Start preschool programs was examined by comparing the pre- and post-test levels of specific mindful expressions and social emotional competencies of CCPT participants with waitlist control group participants. The statistically significant findings indicated that preschool children's levels of empathy and responsibility were impacted as a result of participation in CCPT, as reported by teachers, when compared with the waitlist control group; practically significant findings revealed that CCPT may influence specific mindful expressions including curiosity and openness as well as overall social-emotional competence, emotional knowledge and expression, and empathy and responsibility in Head Start preschool children. While the lack of statistically significant findings may be attributed to a number of factors including small sample size, limitations in teacher reporting, as well as the inclusion of a newly developed instrument being used to assess mindful expressions, the findings nonetheless suggest CCPT may influence specific mindful expressions and social emotional competencies of Head Start preschool students.

The therapeutic relationship and facilitative conditions fostered within CCPT appeared to enhance preschool children's empathy and responsibility in this sample. Thus, it can be

concluded that preschool children in the current study appeared to benefit from participation in CCPT. Findings from this study demonstrate CCPT as a potential treatment option of Head Start preschool children displaying struggles related to social-emotional competence. Considerations should be made when working with disadvantaged preschool children in order to best serve this population such as enhanced parent and teacher consultation, ensuring predictable and regular sessions, and considering additional time needed in therapy to address potential traumas experienced.

APPENDIX E

ADDITIONAL MATERIALS

Date: 2-2-2021

IRB #: IRB-20-410
Title: Play for the Future: Linking Mental Health to Academic Achievement for Young Children
Creation Date: 7-8-2020
End Date:
Status: Approved
Principal Investigator: Deanne Ray
Review Board: UNT IRB Full Board
Sponsor:

Study History

Submission Type Initial	Review Type Expedited	Decision Approved

Key Study Contacts

Member Natalya Lindo	Role Co-Principal Investigator	Contact Natalya.Lindo@unt.edu
Member Peggy Ceballos	Role Co-Principal Investigator	Contact Peggy.Ceballos@unt.edu
Member Deanne Ray	Role Principal Investigator	Contact dee.ray@unt.edu
Member Deanne Ray	Role Primary Contact	Contact dee.ray@unt.edu
Member Hannah Robinson	Role Investigator	Contact Hannah.Robinson@unt.edu

UNIVERSITY OF NORTH TEXAS®

Informed Consent for Parents with Minor Children

TITLE OF RESEARCH STUDY: Play for the Future: Linking Mental Health to Academic Achievement for Young Children

RESEARCH TEAM: Dr. Dee Ray, Dr. Natalya Lindo, and Dr. Peggy Ceballos, University of North Texas (UNT) Department of Counseling and Higher Education.

Your child is being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will any answer any questions you might have. It is your choice whether or not you allow your child to take part in this study. If you agree to have your child participate, and then choose to withdraw your child from the study, that is your right, and your decision will not be held against you.

Your child is being asked to take part in a research study which involves determining if play therapy is effective in helping children improve academic achievement and the way they act, feel, and interact with others at school and home.

Participation in this research study involves your child participating in play therapy immediately or being placed on a waitlist of eight weeks before receiving play therapy. In addition, a researcher will administer three assessments to your child to determine your child's academic progress and level of self-concept at the beginning and end of the study. Your child will be observed in their classroom at two points in the study, the beginning and end of the 8-week period, and your child's homeroom teacher will be asked to fill out an assessment which asks the teacher to report perceptions of your child's social and emotional development before and after the 8-week period. More details will be provided in the next section.

You might want to participate in this study if you believe your child may benefit from play therapy services. We expect that children participating in play therapy will be increasingly aware of their own and others' feelings, thoughts, and needs; learn to interact in an accepting and supportive way; increase ability to develop self-responsibility and self-regulation; form and maintain relationships; and exhibit less disruptive behaviors and other interpersonal difficulties. These possible positive outcomes may ultimately contribute to their improvement in classroom learning and academic performance. The results of this study may further provide school counselors across the nation with knowledge regarding methods of best practice with children exhibiting academic challenges. However, you might not want to participate in this study if you believe you may be uncomfortable answering some of the personal questions.

You may choose to participate in this research study if you have a child in PreK to third grade who you believe may benefit from play therapy services.

The reasonable foreseeable risks or discomforts to your child if you choose to allow him/her to take part is: possible discomfort when answering some of the personal questions, which you can compare to the possible benefit of your child increasing their ability to develop self-responsibility and self-regulation; form and maintain relationships; and exhibit less disruptive behaviors and other interpersonal difficulties. These possible positive outcomes may ultimately contribute to their improvement in classroom learning and academic performance. Your child will not receive compensation for participation.

DETAILED INFORMATION ABOUT THIS RESEARCH STUDY: The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY: The purpose of the study involves determining if play therapy is effective in helping children improve academic achievement and the way they act, feel, and interact with others at school and home.

TIME COMMITMENT: You will be asked to complete three brief assessments which require approximately 10 minutes at the beginning and end of the 8-week period. The entire study will require approximately 30 minutes of your time. Your child will be administered three assessments by a researcher to determine your child's academic progress and level of self-concept at the beginning and end of the 8-week period. This assessment will require approximately 45 minutes to complete and the entire study will require approximately 90 minutes of your child's time to complete assessments. Your child will participate in 16 play therapy sessions which last approximately 30-minutes each, totaling 8 hours.

STUDY PROCEDURES:

1. Your child will be asked to participate in play therapy. Play therapy is designed for children to express themselves in their natural way of playing with toys. Some elementary-age children have difficulty working through problems with words, so play therapy can help facilitate the process by providing a play environment from which they can work through those issues that may limit their academic progress. Through interactions with the therapist, we hope your child will become increasingly aware of his or her own and others' feelings, thoughts, and needs, as well as learn to interact in socially appropriate ways.

   Your child decides what materials to play with and what to discuss in play therapy. Your child will not be asked any questions that are not intended to facilitate his/her awareness or growth. Your child will not be forced to play. The play sessions will be video-recorded. The research team will observe the recordings to ensure the quality of play therapy services and the integrity of the study.

2. If you consent for your child to participate in this study, your child will be placed in play therapy immediately or will be placed on a waitlist of eight weeks before receiving play therapy.

3. You will be asked to complete three brief assessments which require approximately 10 minutes each to complete. The assessment/s will be sent home to you through your child for you to complete. The assessment/s will need to be completed at two points in the study, the beginning and end of the 8 week period. The entire study will require approximately 30 minutes of your time to complete assessments. On assessments, some questions will be personal in nature such as experiences with trauma, abuse, and neglect.

4. Your permission allows a researcher to administer three assessments to your child to determine your child's academic progress and level of self-concept at the beginning and end of the study. This assessment will require approximately 45 minutes to complete. The assessments will need to be completed at two points in the study, the beginning and end of the 8 week period. The entire study will require approximately 90 minutes of your child's time to complete assessments. Additionally, your permission allows your child to be observed in the classroom to assess on-task behaviors. Observation requires no participation from your child or distraction from classroom instruction.

5. Your permission also allows your child's homeroom teacher to fill out an assessment which asks the teacher to report perceptions of your child's social and emotional development. The assessments will be delivered to your child's teacher by the therapist. Your child's teacher will be asked to complete this instrument before and after the 8 week period.

Allowing your child to participate in this research study will include this list of actions that will we will ask you and your child to consider before engaging in the research:

1. Please read carefully the parental informed consent and child assent, and be sure to contact the research team with any questions or concerns you may have.
2. If you grant permission for your child's participation, your child will be scheduled for play therapy services.
3. A member of the research team will observe your child in class, ask your child's teacher to complete an assessment regarding your child, assess your child at prior to and following the 8-week period, and ask you to complete assessments regarding your child.

AUDIO/VIDEO/PHOTOGRAPHY:

The play sessions will be video-recorded and a member of the research team will watch the recordings to look at the quality of play therapy services provided to your child. At the end of this study, the videos may possibly be shown in professional presentations for educational purposes. Identity information such as name, place of living, and other specific information will not be revealed when video recordings are shown in educational settings and will be destroyed

through digital deletion after 5 years. Although we will not use identifying information when video recordings are shown in educational settings, your child's face can be seen which means we cannot guarantee anonymity. Pseudonyms that have no sound similarity to your child's name will be selected in place of your child's name. You may choose to withdraw your consent at any time and the video recordings of your child will not be used.

☐ **I agree** to have my child video recorded during the research study.

☐ **I agree** that the video recording can be used in publications or presentations.

☐ **I do not agree** that the video recordingcan be used in publications or presentations.

☐ **I do not agree** to have my child video recorded during the research study.

Your child may not participate in the research study if you do not agree for your child to be video recorded.

The recordings will be kept with other electronic data in a secure UNT OneDrive account for the duration of the study.

POSSIBLE BENEFITS: We expect that children participating in play therapy will be increasingly aware of their own and others' feelings, thoughts, and needs; learn to interact in an accepting and supportive way; increase ability to develop self-responsibility and self-regulation; form and maintain relationships; and exhibit less disruptive behaviors and other interpersonal difficulties. These possible positive outcomes may ultimately contribute to their improvement in classroom learning and academic performance. The results of this study may further provide school counselors across the nation with knowledge regarding methods of best practice with children exhibiting academic challenges.

POSSIBLE RISKS/DISCOMFORTS: There are no significant personal risks expected from involvement in this study. Your participation is completely voluntary. You may discontinue participation at any time while completing the assessments. One possible risk to participation is discomfort when answering some of the personal questions. If you feel that the questions are too personal, you may choose not to answer the question or discontinue participation. Remember that you and your child have the right to withdraw any study procedures at any time without penalty and may do so by informing the research team.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security.

If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are

currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, you may contact the primary investigator for referrals for emotional support or call Denton County MHMR 24-hour crisis hotline at 940-387-5555.

COMPENSATION: You will receive $10 in cash as compensation for your participation at the completion of the final assessments for this study.

CONFIDENTIALITY: Efforts will be made by the research team to keep you and your child's personal information private, including research study records, and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored in a secure location on the UNT campus and/or a secure UNT server for at least three (3) years past the end of this research confidential in a locked cabinet in the Center for Play Therapy of the Counseling Program at the University of North Texas Research records will be labeled with a code and the master key linking names with codes will be maintained in a separate and secure location.

The results of this study may be published and/or presented without naming you as a participant. The data collected about your child for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA (federal regulating agencies), the reviewing IRB, and sponsors of the study.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Dr. Dee Ray at 940 565 3864. Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

CONSENT:

- Your signature below indicates that you have read, or have had read to you all of the above.
- You confirm that you have been told the possible benefits, risks, and/or discomforts of the study.

- You understand that your child does not have to take part in this study, and your refusal to allow participation, or your decision to withdraw will involve no penalty or loss of rights or benefits.
- You understand your child's rights as a research participant and you voluntarily consent to allow your child to participate in this study; you also understand that the study personnel may choose to stop your child's participation at any time.
- By signing, you are not waiving any of [you and] your child's legal rights.

Please sign below if you are at least 18 years of age and voluntarily agree to participate in this study.

SIGNATURE OF PARTICIPANT **DATE**

***If you agree to participate, please provide a signed copy of this form to the researcher team. They will provide you with a copy to keep for your records.**

UNIVERSITY OF NORTH TEXAS®

Informed Consent for Parents with Minor Children

ASSENT FOR CHILD PARTICIPATION – Ages 12 and Under

My name is [identify yourself to the child by name.]

I am doing a research study, and would like to ask you to be a part of my study. Research studies help us to learn and test new ideas. I am going to give you a paper to read that will tell you all about our research study. You can ask us questions at any time.

We want to include you in this research study because we are trying to learn more about whether play therapy is helpful to you. Play therapy is a time when you will come to a playroom either by yourself or with one other child, and a counselor will ask you to play with the toys in lots of the ways you like. Sometimes for children it is hard to share feelings with words and it helps to play with toys to express how you feel.

You can decide if you want to be part of this research study. I will tell you more to help you to decide.

If you say yes to be included in this study you will be asked to come to play therapy two times a week for 8 weeks, which will take about 1 hour per week, or you might be asked to come to play therapy one time a week later in the school year.

Sometimes in play therapy you may feel sad, frustrated, or angry.

But, play therapy may help you feel better and help you focus in class better.

Please talk with your parents or guardian about your decision. We will also check with them to see if it is okay for you to be included in this study. Even if your parents or guardian say yes, you can still at any time decide not to be included.

If you decide not to be in this study, you do not have to. Being in this study is up to you and no one will be mad or upset even if you choose later not to continue and stop before you are finished. That is okay.

You can ask me questions that you have about the study now. If you have a question later that you did not ask now, you or your parents can call or email me, or you can ask me when I see you next time.

Would you like to be in this research study? If you say "yes" then you agree to be in this study.

If you would like to be part of this study, please sign your name below.

_____
Printed Name of Child

_____ _____
Signature of Child Date

_____ _____
Signature of Investigator Date

UNIVERSITY OF NORTH TEXAS®

Teacher Informed Consent

TITLE OF RESEARCH STUDY: Play for the Future: Linking Mental Health to Academic Achievement for Young Children

RESEARCH TEAM: Dr. Dee Ray, Dr. Natalya Lindo, and Dr. Peggy Ceballos, University of North Texas (UNT) Department of Counseling and Higher Education.

You are being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will any answer any questions you might have. It is your choice whether or not you take part in this study. If you agree to participate and then choose to withdraw from the study, that is your right, and your decision will not be held against you.

You are being asked to take part in a research study determining if play therapy is effective in helping children improve academic achievement and the way they act, feel, and interact with others at school and home.

Your participation in this research study involves completing a brief assessment for each participating child in your classroom at two points in the study: the beginning of the 8-week period and the end of 8-week period. Each assessment takes approximately 10 minutes to complete, totaling 20 minutes per child of your time for the entire study. Additionally, you may be asked to participate in an interview regarding your perceptions of teacher-child relationships in the classroom. The interview would consist of a 45-minute meeting time twice during the school year. More details will be provided in the next section.

You might want to participate in this study if you have children in your classroom who you believe could benefit from play therapy. Possible positive outcomes for children participating in the project include becoming increasingly aware of their own and others' feelings, thoughts, and needs; learning to interact in an accepting and supportive way; increasing ability to develop self-responsibility and self-regulation; forming and maintaining relationships; and exhibiting less disruptive behaviors and other interpersonal difficulties. These possible positive outcomes may ultimately contribute to their improvement in classroom learning and academic performance. The results of this study may further provide school counselors across the nation with knowledge regarding methods of best practice with children exhibiting academic challenges. However, you might not want to participate in this study if you do not have time to participate in the brief assessments and interview.

You may choose to participate in this research study if you are a child in your classroom's parent provides permission for their child's participation in this study.

No foreseeable risks are involved in this study, which you can compare to the possible benefit of ultimately contribute to participating children's improvement in classroom learning and academic performance.

DETAILED INFORMATION ABOUT THIS RESEARCH STUDY: The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY: The purpose of this research study involves determining if play therapy is effective in helping children improve academic achievement and the way they act, feel, and interact with others at school and home.

TIME COMMITMENT: You will be asked to complete a brief assessment for each participating child in your classroom at two points in the study: the beginning of the 8-week period and the end of 8-week period. Each assessment takes approximately 10 minutes to complete, totaling 20 minutes per child of your time for the entire study. Additionally, you may be asked to participate in an interview regarding your perceptions of teacher-child relationships in the classroom. The interview would consist of a 45-minute meeting time twice during the school year.

STUDY PROCEDURES:

1. Parents provide permission for their child's participation in this study.
2. each participating child will be assigned to play therapy immediately or will be placed on a waitlist of eight weeks before receiving play therapy.
3. You will be asked to complete a brief assessment for each participating child in your classroom prior to the beginning of the 8-week period.
4. 8-week period of play therapy services and waitlist will begin.
5. You will be asked to complete a brief assessment for each participating child at the end of 8-week period.

POSSIBLE BENEFITS: Possible positive outcomes for children participating in the project include becoming increasingly aware of their own and others' feelings, thoughts, and needs; learning to interact in an accepting and supportive way; increasing ability to develop self-responsibility and self-regulation; forming and maintaining relationships; and exhibiting less disruptive behaviors and other interpersonal difficulties. These possible positive outcomes may ultimately contribute to their improvement in classroom learning and academic performance. The results of this study may further provide school counselors across the nation with knowledge regarding methods of best practice with children exhibiting academic challenges.

POSSIBLE RISKS/DISCOMFORTS: No foreseeable risks are involved in this study. Remember that you have the right to withdraw any study procedures at any time without penalty, and may do so by informing the research team. This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life. However, if you do experience any discomfort, please inform the research team.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security.

If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, helpful resources include UNT Mental Health Emergency line at 940-565-2741.

COMPENSATION: You will receive $10 as compensation for your participation at the completion of the final assessments for this study.

CONFIDENTIALITY: Efforts will be made by the research team to keep your personal information private, including research study materials, and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored in a secure location on the UNT campus and/or a secure UNT server for at least three (3) years past the end of this research in a locked cabinet in the Center for Play Therapy of the Counseling Program at the University of North Texas, Welch Building. Only the research team will have access to the cabinet. Information obtained from the instruments and background information form will be recorded with a code number according to schools, gender, and the alphabetical order of their names and the master key linking names with codes will be maintained in a separate and secure location. The personally identifiable data will be maintained for 5 years following the end of the study. The data will be destroyed after the period of 5 years. Confidentiality of your individual information will be maintained in any publications or presentations regarding this study

The results of this study may be published and/or presented without naming you as a participant. The data collected about you for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by

law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA (federal regulating agencies), the reviewing IRB, and sponsors of the study.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Dr. Dee Ray at 940 565 3864. Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

CONSENT:

- Your signature below indicates that you have read, or have had read to you all of the above.
- You confirm that you have been told the possible benefits, risks, and/or discomforts of the study.
- You understand that you do not have to take part in this study and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits.
- You understand your rights as a research participant and you voluntarily consent to participate in this study; you also understand that the study personnel may choose to stop your participation at any time.
- By signing, you are not waiving any of your legal rights.

Please sign below if you are at least 18 years of age and voluntarily agree to participate in this study.

SIGNATURE OF PARTICIPANT **DATE**

***If you agree to participate, please provide a signed copy of this form to the researcher team. They will provide you with a copy to keep for your records.**

COMPREHENSIVE REFERENCE LIST

Administration for Children & Families (2015). *Head start early learning outcomes framework: Ages birth to five.* https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/elof-ohs-framework.pdf

American Academy of Pediatrics (2019). *Caring for your baby and young child: Birth to age 5*. (T. Altmann & D. L. Hill, Eds.). Bantam Books.

American Academy of Pediatrics (2020, November 27). *Is your preschooler ready for kindergarten?* https://www.healthychildren.org/English/ages-stages/preschool/Pages/Is-Your-Child-Ready-for-School.aspx

Arnold, D. H., Kupersmidt, J. B., Voegler-Lee, M. E., & Marshall, N. A. (2012). The association between preschool children's social functioning and their emergent academic skills. *Early Childhood Research Quarterly, 27*, 376-386. https://doi.org/10.1016/j.ecresq.2011.12.009

Axline, V. (1947). *Play Therapy.* New York: Ballantine.

Badenoch, B. (2008). *Being a brainwise therapist: A practical guide to interpersonal neurobiology.* Norton & Company, Inc.

Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., & Walsh, E. (2008). Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. *Assessment, 15*(3), 329-342. https://doi.org/10.1177/1073191107313003

Balch, J. W. (2016). The extraordinary 4-year-old. In D. C. Ray (Ed.), *A therapist's guide to child development: The extraordinary normal years* (pp. 57-68). New York, NY: Routledge.

Beshai, S., & Parmar, P. (2019). Trait mindfulness may buffer against the deleterious effects of childhood abuse in recurrent depression: A retrospective exploratory study. *Clinical Psychologist, 23,* 26-36.

Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs, 33*, 2106-2115. https://doi.org/10.1377/hlthaff.2014.0914

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241.

Blalock, S. M., Lindo, N., & Ray, D. C. (2019). Individual and group child-centered play therapy: Impact on social-emotional competencies, *Journal of Counseling & Development, 97,* 238-249. https://doi.org/ 10.1002/jcad.12264

Blodgett, C., & Lanigan, J. D. (2018). The association between adverse childhood experiences (ACE) and school success in elementary school children. *School Psychology Quarterly, 33*(1), 137-146. https://doi.org/10.1037/spq0000256

Borquist-Conlon, D. S., Maynard, B. R., Brendel, K. E., & Farina, A. S. (2019). Mindfulness-based interventions for youth with anxiety: A systematic review and meta-analysis. *Research on Social Work Practices, 29*(2), 195-205. https://doi.org/10.1177/1049731516684961

Bratton, S. C., Ray. D., Rhine, T., & Jones, L. (2005). The efficacy of play therapy with children: A meta-analytic review of treatment outcomes. *Professional Psychology: Research and Practice, 36*(4), 376-390. https://doi.org/10.1037/0735-7028.36.4.376

Bratton, S. C., Ceballos, P. L., Sheely-Moore, A. I., Meany-Walen, K., Pronchenko, Y., & Jones, L. D. (2013). Head start early mental health intervention: Effects of child-centered play therapy on disruptive behaviors. *International Journal of Play Therapy, 22*(1), 28-42. https://doi.org/10.1037/a0030318

Brett, E. I., Espeleta, H. C., Lopez, S. V., Leavens, E. L. S., & Leffingwell, T. R. (2018). Mindfulness as a mediator of the association between adverse childhood experiences and alcohol use and consequences. *Addictive Behaviors, 84,* 92-98. https://doi.org/10.1016/j.addbeh.2018.04.002

Bright, M. A., Knapp, C., Hinojosa, M. S., Alford, S., & Bonner, B. (2016). The comorbidity of physical, mental, and developmental conditions associated with childhood adversity: A population based study. *Maternal and Child Health Journal, 20,* 843-853. https://doi.org/10.1007/s10995-015-1915-7

Brophy-Herb, H. E., Lee, R. E., Nievar, M. A., & Stollak, G. (2007). Preschoolers' social competence: Relations to family characteristics, teacher behaviors, and classroom climate. *Journal of Applied Developmental Psychology, 28*, 134-148. https://doi.org/10.1016/j.appdev.2006.12.004

Collaborative for Academic, Social, and Emotional Learning (CASEL; 2021, May 31). *What is SEL?* https:// casel.org/what-is-sel/

Cash, M., & Whittingham, K. (2010). What facets of mindfulness contribute to psychological well-being and depressive, anxious, and stress-related symptomatology? *Mindfulness, 1*, 177-182. https://doi.org/10.1007/s12671-010-0023-4

Centers for Disease Control. (n.d.). *Adverse childhood experiences.* Center for Disease Control. Retrieved April 10, 2020, from https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/index.html

Chadwick, J., & Gelbar, N. W. (2016). Mindfulness for children in public schools: Current research and developmental issues to consider. *International Journal of School and Educational Psychology, 4*(2), 106-112. https://doi.org/10.1080/21683603.2015.1130583

Cheng, Y., & Ray, D. C. (2016). Child-centered group play therapy: Impact on social-emotional assets of kindergarten children. *The Journal for Specialists in Group Work, 41*(3), 209-237. https://doi.org/10.1080/01933922.2016.1197350

Chiesa, A., & Serretti, A. (2011). Mindfulness based cognitive therapy for psychiatric disorders: A systematic review and meta-analysis. *Psychiatry Research, 187*, 441-453. https://doi.org/10.1016/j.psychres.2010.08.001

Choi, J., Wang, D., & Jackson, A. P. (2019). Adverse experiences in early childhood and their longitudinal impact on later behavioral problems of children living in poverty.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences (Revised Ed.). New York: Academic Press.

Cronholm, P. F., Forke, C. M., Wade, R., Bair-Merritt, M. H., Davis, M., Harkins-Schwarz, M., Pachter, L. M., & Fein, J. A. (2015). Adverse childhood experiences: Expanding the concept of adversity. *American Journal of Preventive Medicine, 49*(3), 354-361. https://doi.org/10.1016/j.amepre.2015.02.001

Crouch, E., Probst, J. C., Radcliff, E., Bennett, K. J., & McKinney, S. H. (2019). Prevalence of adverse childhood experiences (ACEs) among US children. *Child Abuse & Neglect, 92*, 209-218. https://doi.org/10.1016/j.chiabu.2019.04.010

Cprek, S. E., Williamson, L. H., McDaniel, H., Brase, R., & Williams, C. M. (2020) Adverse childhood experiences (ACEs) and risk of childhood delays in children ages 1-5. *Child and Adolescent Social Work Journal, 37*, 15-24. https://doi.org/10.1007/s10560-019-00622-x

Curby, T. W., Brown, C. A., Bassett, H. H., & Denham, S. A. (2015). Associations between preschoolers' social-emotional competence and preliteracy skills. *Infant and Child Development, 24,* 549-570. https://doi.org/10.1002/icd.1899

D'Andrea, W., Ford, J., Stolbach, B., Spinazzolo, J., & van der Kolk, B. A. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry, 82*(2), 187-200. https://doi.org/10.1111/j.1939-0025.2012.01154.x

de Winter, J. C. F. (2013). Using the student's t-test with extremely small sample sizes. *Practical Assessment, Research & Evalaution, 18*(10), 1-12. https://doi.org/10.7275/e4r6-dj05

Denham, S. A., Bassett, H. H., Zinsser, K., & Wyatt, T. M. (2014). How preschoolers' social-emotional learning predicts their early school success: Developing theory- promoting, competency-based assessments. *Infant and Child Development, 23,* 426-454. https://doi.org/10.1002/icd.1840

Desrosiers, A., Klemanski, D. H., & Nolen-Hoeksema, S. (2013). Mapping mindfulness facets onto dimensions of anxiety and depression. *Behavior Therapy, 44,* 373-384.

Dillman Taylor, D. L. (2016). The extraordinary 5-year-old. In D. C. Ray (Ed.), *A therapist's guide to child development: The extraordinary normal years* (pp. 71-82). New York, NY: Routledge.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.

Elmore, A. L., & Crouch, E. (2019). The association of adverse childhood experiences with anxiety and depression for children and youth, 8 to 17 years of age. *Academic Pediatrics, 20*(5), 600-608. https://doi.org/10.1016/j.acap.2020.02.012

Felitti, V. J., Anda, R. F., Norenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. M. (1998). Relationship to childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245-258

Felver, J. C., Tipsord, J. M., Morris, M. J., Racer, K. H., & Dishion, T. J. (2017). The effects of mindfulness-based intervention on children's attention regulation. *Journal of Attention Disorders, 21*(10), 872-881. https://doi.org/10.1177/1087054714548032

Feuerborn, L. L. & Gueldner, B. (2019). Mindfulness and social-emotional competencies: Proposing connections through a review of the research. *Mindfulness, 10*, 1707-1720. https://doi.org/10/1007/s12671-019-01101-1

Finkelhor, D., Sattuck A., Turner, H., & Hamby, S. (2015). A revised inventory of adverse childhood experiences. *Child Abuse & Neglect, 48*, 13-21. https://doi.org/10.1016/j.chiabu.2015.07.011

Flaherty, E. G., Thompson, R., Litrownik, A. J., Theodore, A., English, D. J., Black. M. M., Wike, T., Whimper, L., Runyan, D. K., & Dubowitz, H. (2006). Effect of early childhood adversity on child health. *Pediatric & Adolescent Medicine, 160*, 1232-1238.

Flook, L., Smalley, S. L., Kitil, M. J., Galla. B. M., Kaiser-Greenland, S., Locke, J., Ishijima, E., & Kasari, C. (2010). Effects of mindful awareness practices on executive functions in elementary school children. *Journal of Applied School Psychology, 26*(1), 70-95. https://doi.org/10.1080/15377900903379125

Flook, L., Golberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. *Developmental Psychology, 51*(1), 44-51. https://doi.org/10.1037/a0038256

Galante, J., Irabarren, S. J., & Pearce, P. F. (2012). Effects of mindfulness-based cognitive therapy on mental disorders: A systematic review and meta-analysis of randomized controlled trials. *Journal of Research in Nursing, 18*(2), 133-155. https://doi.org/10.1177/1744987112466087

Grasso, D. J., Dierkhising, C. B., Brandon, C. E., & Ford, J. D. (2016). Developmental patterns of adverse childhood experiences and current symptoms and impairment in youth referred for trauma-specific services. *Journal of Abnormal Child Psychology, 44,* 871-886. https://doi.org/10.1007/s10802-015-0086-8

Greenberg, M. T., & Harris, A. R. (2012). Nurturing mindfulness in children and youth: Current state of research. *Child Development Perspectives, 6*(2), 161-166. https://doi.org/10.1111/j.1750-8606.2011.00215.x

Gross, J. J. (2014). Emotion regulation: Conceptual and empirical foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (2nd ed., pp. 3–20). The Guilford Press.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35-43. https://doi.org/10.1016/S0022-3999(03)00573-7

Haas, S. (2017). *Child-centered play therapy with children affected by adverse childhood experiences: A single case design.* [Unpublished doctoral dissertation]. University of North Texas.

Hambrick, E. P., Brawner, T. W., Perry, B. D., Brandt, K., Hofmeister, C., & Collins, J. O. (2019). Beyond the ACE score: Examining relationships between timing of developmental adversity, relational health and developmental outcomes in children. *Archives of Psychiatric Nursing, 33,* 238-247. https://doi.org/10.1016/j.apnu.2018.11.001

Hays-Grudo, J. & Morris, A. S. (2020). *Adverse and protective childhood experiences: A developmental perspective.* American Psychological Association.

Hinojosa, M. S., Hinojosa, R., Bright, M, & Nguyen, J. (2019). Adverse childhood experiences and grade retention in a national sample of US children. *Sociological Inquiry, 89*(3), 401-426. https://doi.org/10.1111/soin.12272

Hong, R., & Mason, C. M. (2016). Becoming a neurobiologically informed play therapist. *International Journal of Play Therapy, 25*(1), 35-44. doi:10.1037/pla0000020

Hozel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science, 6*(6), 537-559. https://doi.org/10.1177/1745691611419671

Huber, L., Plotner, M., In-Albon, T., Stadelmann, S., & Schmitz, J. (2019). The perspective matters: A multi-informant study on the relationship between social-emotional competence and preschoolers' externalizing and internalizing symptoms. *Child Psychiatry & Human Development, 50*, 1021-1036. https://doi.org/10.1007/s10578-019-00902-8

Jimenez, M. E., Wade Jr., R., Lin, Y., Morrow, L. M., & Reichman, N. E. (2016). Adverse experiences in early childhood and kindergarten outcomes. *Pediatrics, 137*(2), 1-9.

Jimenez, M. E., Wade, R., Schwartz-Soicher, O., Lin, Y., Reichman, N. E. (2017). Adverse childhood experiences and ADHD diagnosis at age 9 years in a national urban sample. *Academic Pediatrics, 17*(4), 356-361.

Jones, D., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health, 105*(11), 2283-2290. https://ajph.aphapublications.org/doi/10.2105/AJPH.2015.302630

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*(2), 144-156. https://doi.org/10.1093/clipsy/bpg016

Kallapiran, K., Koo, S., Kirubakaran, R., & Hancock, K. (2015). Review: Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: a meta-analysis. *Child and Adolescent Mental Health, 20*(4), 182-194. https://doi.org/10.1111/cahm.12113

Karoly, L. A. & Auger, A. (2016). *Informing investments in preschool quality and access in Cincinnati: Evidence of impacts and economic returns from national, state, and local preschool programs.* RAND Corporation. https://www.rand.org/pubs/research_reports/RR1461.html

Kerker, B. D., Zhang, J., Nadeem, E., Stein, R. E. K., Hurlburt, M. S., Heneghan, A., Landsverk, J., & Horwitz, S. M. (2015). Adverse childhood experiences and mental health, chronic medical conditions, and development in young children. *Academic Pediatrics, 15*(5), 510-516.

Kestly, T. A. (2014). *The interpersonal neurobiology of play: Brain building interventions for emotional well-being.* W. W. Norton & Company, Inc.

Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., Chapleau, M., Paquin, K., & Hofmann, S. G. (2013). Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review, 33,* 763-771. https://doi.org/10.1016/j.cpr.2013.05.005

Khoury, B., Sharma, M., Rush, S. E., Fournier, C. (2015). Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *Journal of Psychosomatic Research, 78*, 519-528. https://doi.org/10.1016/j.jpsychores.2015.03.009

Kram, K. (2019). *Child-centered play therapy and adverse childhood experiences: Effectiveness on impulsivity and inattention.* (Publication No. 27592365). [Doctoral dissertation, University of North Texas]. ProQuest Dissertations and Theses Global.

Landreth, G. L. (1982). *Play therapy.* Springfield, IL: Charles C. Thomas.

Landreth, G. L. (2012). *Play therapy: The art of the relationship* (2nd ed.). New York, NY: Routledge.

Lawlor, M. S. (2016). Mindfulness and social emotional learning (SEL): A conceptual framework. In K. A. Schonert-Reichl & R. W. Roeser (Eds.), *Handbook of mindfulness in education.* (pp. 65-80). Springer-Verlag. https://doi.org/10.1007/978-1-4939-3506-2_5

Lee, K. R. (2016). The extraordinary 3-year-old. In D. C. Ray (Ed.), *A therapist's guide to child development: The extraordinary normal years* (pp. 46-56). New York, NY: Routledge.

Lemberger-Truelove, M. E., Carbonneau, K. J., Atencio, D. J., Zieher, A. K., & Palacios, A. F. (2018). Self-regulatory growth effects for young children participating in a combined social and emotional learning and mindfulness-based intervention. *Journal of Counseling & Development, 96,* 289-302. https://doi.org/10.1002/j.1556-6676.2014.00000.x

Lemberger-Truelove, M. E., Carbonneau, K. J., Zieher, A. K., & Atencio, D. J. (2019). Support for the development and use of the child observation of mindfulness measure (C-OMM). *Mindfulness, 10,* 1406-1416. https://doi.org/10.1007/s12671-019-1094-5

Lemberger-Truelove, M., & Zieher, A. K. (2019). *Child observation mindfulness measure (C-OMM)*.

Lin, Y., & Bratton, S. C. (2015). A meta-analytic review of child-centered play therapy approaches. *Journal of Counseling & Development, 93,* 45-58. https://doi.org/10.1002/j.1556-6676.2015.00180.x

Lindahl, J. R., Fisher, N. E., Cooper, D. J., Rosen, R. K., & Britton, W. B.. (2017). The varieties of contemplative experience: A mixed-methods study of meditation-related challenges in Western Buddhists. *PLoS One, 12*(5), 1-18. https://doi.org/10.1371/journal.pone.0176239

Malinowski, P. (2008). Mindfulness as psychological dimension: Concepts and applications. *The Irish Journal of Psychology, 29*(1-2), 155-166.

Maynard, B. R., Solis, M. R., Miller, V. L., Brendel, K. E. (2017). Mindfulness-based interventions for improving cognition, academic achievement, behavior, and socioemotional functioning of primary and secondary school students. *Campbell Systematic Reviews, 5,* 1-144. https://doi.org/10.4073/csr.2017.5

Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect, 69*, 10-19. https://doi.org/10.1016/j.chiabu.2017.03.016

Murano, D., Sawyer, J. E., & Lipnevich, A. A. (2020). A meta-analytic review of preschool social and emotional learning interventions. *Review of Educational Research, 90*(2), 227-263. https://doi.org/10.3102/0034654320914743

National Center of children in Poverty. (2019, August 19). *Child poverty*. http://www.nccp.org/topics/childpoverty.html

National Center for Education Statistics. (2017). *Compulsory school attendance laws, minimum and maximum age limits for required free education, by state: 2017.* https://nces.ed.gov/programs/statereform/tab5_1.asp

National Center for Education Statistics (2019). *Preschool and kindergarten enrollment* [Data file]. Retrieved from https://nces.ed.gov/programs/coe/indicator_cfa.asp

Nilsson, H., & Kazemi, A. (2016). Reconciling and thematizing definitions of mindfulness: The big five of mindfulness. *Review of General Psychology, 20*(2), 183-193. https://doi.org/10.1037/gpr0000074

Office of Head Start. (2019, August 19). *Policy & regulations: The head start program performance standards.* https://www.acf.hhs.gov/ohs/policy

Ortiz, R. & Sibinga, E. M. (2017). The role of mindfulness in reducing the adverse effects of childhood stress and strauma. *Children, 4*(16), 1-19. https://doi.org/10.3390/children4030016

Palacios, A. F. & Lemberger-Truelove, M. E. (2019). A counselor-delivered mindfulness and social-emotional learning intervention for early childhood educators. *Journal of Humanistic Counseling, 58*, 184-203. https://doi.org/10.1002/johc.12119

Peters, J. R., Erisman, S. M., Upton, B. T., Baer, R. A., & Roemer, L. (2011). A preliminary investigation of the relationships between dispositional mindfulness and impulsivity. *Mindfulness, 2,* 228-235. https://doi.org/10.1007/s12671-011-0065-2

Petruccelli, K., Davis, J., & Berman, T. (2019). Adverse childhood experiences and associated health outcomes: A systematic review and meta-analysis. *Child Abuse and Neglect, 97*, 1-13. https://doi.org/10.1016/j.chiabu.2019.104127

Petty, K. (2016). *Developmental milestones of young children* (Revised ed.). Redleaf Press.

Poehlmann-Tynan, J., Vigna, A. B., Weymouth, L. A., Gerstein, E. D., Burnson, C., Zabransky, M, Lee, P., & Zahn-Waxler, C. (2016). A pilot study of contemplative practices with economically disadvantaged preschoolers: Children's empathic and self-regulatory behaviors. *Mindfulness, 7,* 46-58. https://doi.org/10.1007/s12671-015-0426-3

Purswell, K. E., & Ray. D. C. (2014). Research with small samples: Considerations for single case and randomized small group experimental designs. *Counseling Outcome Research and Evaluation, 5*(2), 116-126. https://doi.org/10.1177/2150137814552474

Ravitch, N. K. (2013). *Development and preliminary validation of the social-emotional assets and resiliency scale for preschool.* (Publication No. 3600108). [Doctoral dissertation, University of Oregon]. ProQuest Dissertations and Theses Global.

Ray, D. C. (2011). *Advanced play therapy: Essential conditions, knowledge, and skills for child practice.* New York, NY: Routledge.

Ray, D. C., Armstrong, S. A., Balkin, R. S., & Jayne, K. M. (2015). Child-centered play therapy in the schools: Review and meta-analysis. *Psychology in the Schools, 52*(2), 107-123. https://doi.org/10.1002/pits.21798

Ray, D. C., Purswell, K., Haas, S., & Aldrete, C. (2017). Child-centered play therapy research integrity checklist: Development, reliability, and use. *International Journal of Play Therapy, 26*(4), 207-217. https://doi.org/10.1037/pla0000046

Ray, D. C., Angus, E., Robinson, H., Kram, K., Tucker, S., Haas, S., & McClintock, D. (2020). Relationship between adverse childhood experiences, social-emotional competencies, and problem behaviors among elementary-aged children. *Journal of Child and Adolescent Counseling,* 1-12. https://doi.org/10.1080/23727810.2020.1719354

Roche, A. I., Kroska, E. B., Miller, M. L., Kroska, S. K., & O'Hara, M. W. (2019). Childhood trauma and problem behavior: Examining the mediating roles of experiential avoidance and mindfulness processes. *Journal of American College Health, 67*(1), 17-26. https://doi.org/10.1080/07448481.2018.1455689

Rogers, C. R. (1951). *Client-centered therapy.* Great Britain: Constable.

Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology, 21,* 95-103.

Rogers, C. R. (1961). *On becoming a person.* New York, NY: Houghton Mifflin.

Rogers, C. R. (1989). *The Carl Rogers reader.* H. Kirschenbaum & V. L. Henderson (Eds). New York, NY: Houghton Mifflin.

Schore, A. N. (2014). The right brain is dominant in psychotherapy. *Psychotherapy, 51*(3), 388-397. https://doi.org/10.1037/a0037083

Shute, R. H. (2019). Schools, mindfulness, and metacognition: A view from developmental psychology. *International Journal of School & Educational Psychology, 7*(51), 123-136. https://doi.org/10.1080/21683603.2018.1435322

Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology, 62*(3), 373-386. https://doi.org/10.1002/jclp.20237

Shapiro, S. L., & Carlson, L. E. (2009). *The art and science of mindfulness: Integrating mindfulness into psychology and the helping professions*. Washington, DC: American Psychological Association.

Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being.* New York: Norton.

Siegel, R. D., Germer, C. K., & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from? In F. Didonna (Ed.), *Clinical handbook of mindfulness* (17-35). New York, NY: Springer.

Sklad, M., Diekstra, R., De Ritter, M., Ben, J. (2012). Effectiveness of school-based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment? *Psychology in The Schools, 49*(9), 892-909. https://doi.org/10.1002/pits.21641

Spencer, N. H., Lay, M., & Kevan de Lopez, L. (2013). Normal enough? Tools to aid decision making. *International Journal of Social Research Methodology, 20*(2), 167-179. https://doi.org/10.1080/13645579.2016.1155379

Sprenger, M. (2008). *The developing brain: Birth to age eight.* Thousand Oaks, CA: Corwin Press.

Stewart, A. L., Field, T. A., & Echterling, L G. (2016). Neuroscience and the magic of play therapy. *International Journal of Play Therapy, 25*(1), 4-13. https://doi.org/10.1037/pla0000016

Taylor, L. & Ray, D. C. (2021). Child-centered play therapy and social-emotional competencies of African American children: A randomized controlled trial. *International Journal of Play Therapy, 30*(2), 74-85. https://doi.org/10.1037/pla0000152

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development, 88*(4), 1156-1171. https://doi.org/10.1111/cdev.12864

Texas Education Agency. (2020, March 29). *General prekindergarten FAQ.* Early childhood education. https://tea.texas.gov/academics/early-childhood-education/general-prekindergarten-faq

Thompson, B. (2002). "Statistical", "practical", and "clinical": How many kinds of significance do counselors need to consider? *Journal of Counseling & Development, 80*, 64-71. https://doi.org/10.1002/j.1556-6678.2002.hb00167.x

Torres, M. M., Domitrovich, C. E., & Bierman, K. L. (2015). Preschool interpersonal relationships predict kindergarten achievement: Mediated by gains in emotion knowledge. *Journal of Applied Developmental Psychology, 39*, 44-52. https://doi.org/10.1016/j.appdev.2015.04.008

Treleaven, D. A. (2018). *Trauma-sensitive mindfulness: Practices for safe and transformative healing*. W. W. Norton & Company.

Tucker, S. (2020). *The impact of child-centered play therapy on academic achievement of children in poverty* [Unpublished doctoral dissertation]. University of North Texas.

U. S. Government. (n.d.). *Texas head start*. Retrieved August 19, 2020. https://www.benefits.gov/benefit/1941#Eligibility_Checker

Van Dam., N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., Gorchov, J., Fox, K. C. R., Field, B. A., Britton, W. B., Brefczynski-Lewis, J. A., & Meyer. D. E. (2018). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on Psychological Science, 13*(1), 36-61. https://doi.org/10.1177/1745691617709589

van der Kolk, B. A. (20015). Developmental trauma disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals, 35*(5), 401-408.

VanFleet, R., Sywulak, A. E., & Sniscak, C. C. (2010). *Child-centered play therapy*. New York, NY: The Guilford Press.

Wade, R., Cronholm, P. F., Fein, J. A., Forke, C. M., Davis, M. B., Harkins-Schwarz, M., Pachter, L. M., Bair-Merritt, M. H. (2016). Household and community-level adverse childhood experiences and adult mental health outcomes in a diverse urban population. *Child Abuse & Neglect, 52,* 135-145. https://doi.org/10.1016/j.chiabu.2015.11.012

Wheeler, N., & Taylor, D. D. (2016). Integrating interpersonal neurobiology with play therapy. *International Journal of Play Therapy, 25*(1), 24-34. https://doi.org/10.1037/pla0000018

Wilson, B. J. & Ray, D. (2018). Child-centered play therapy: Aggression, empathy, and self-regulation. *Journal of Counseling and Development, 96*(4), 399-409. https://doi.org/10.1002/jcad.12222

Wood, C. (2017). *Yardsticks: Child and adolescent development ages 4-14* (4th ed.). Center for Responsive Schools, Inc..

World Health Organization. Adverse Childhood Experiences International Questionnaire. In Adverse Childhood Experiences International Questionnaire (ACE-IQ). [website]: Geneva: WHO, 2018. https://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/en/

Xia, T., Hu. H., Seritan, A. L., & Eisendrath, S. (2019). The many roads to mindfulness: A review of nonmindfulness-based interventions that increase mindfulness. *The Journal of Alternative and Complementary Medicine, 25*(9), 874-889. https://doi.org/10.1089/acm.2019.0137

Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools- a systematic review and meta-analysis. *Frontiers in Psychology, 5*(603), 1-20.